

# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 154433**

**TO: Kevin Weddington**  
**Location: rem/3a65/3c70**  
**Art Unit: 1614**  
**Wednesday, August 17, 2005**

**Case Serial Number: 10/631029**

**From: Mary Hale**  
**Location: Biotech/Chem Library**  
**Rem 1D86**  
**Phone: 2-2507**

**Mary.Hale@uspto.gov**

### **Search Notes**

**Feel free to contact me if you have any questions.**

**Note -- results are printed on both sides of printout**

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REF 4-3070

ATTN: MTKY

ACCESS DB #

162711

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## Scientific and Technical Information Center

## SEARCH REQUEST FORM

Requester's Full Name: K. Weddington Examiner #: 68082 Date: 8-16-05  
Art Unit: 1614 Phone Number: 2-0587 Serial Number: 101631029  
Location (Bldg/Room#): REF-3ALC (Mailbox #): \_\_\_\_\_ Results Format Preferred (circle): (PAPER) DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following: MEJ

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): Rajinder Singh; Ankush Argade; Donald G. Payan;  
Holger Keim; Somasekar Bhamidipati; Catherine Sylvain; Hui Li

Earliest Priority Date: \_\_\_\_\_

## Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Treating an autoimmune disease with a 2,4-pyrimidinediamine compound

The compounds are

R921302

R926891

R940323

R940347

R921303

The autoimmune disease is selected from

~~chest~~ rheumatoid arthritis  
systemic lupus erythematosus  
multiple sclerosis  
autoimmune encephalomyelitis

\*\*\*\*\*  
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## Type of Search

## Vendors and cost where applicable

Searcher: \_\_\_\_\_

\_\_\_\_ NA Sequence (#)

\_\_\_\_ STN

\_\_\_\_ Dialog

Searcher Phone #: \_\_\_\_\_

\_\_\_\_ AA Sequence (#)

\_\_\_\_ Questel/Orbit

\_\_\_\_ Lexis/Nexis

Searcher Location: \_\_\_\_\_

\_\_\_\_ Structure (#)

\_\_\_\_ Westlaw

\_\_\_\_ WWW/Internet

Date Searcher Picked Up: \_\_\_\_\_

\_\_\_\_ Bibliographic

\_\_\_\_ In-house sequence systems

Date Completed: \_\_\_\_\_

\_\_\_\_ Litigation

\_\_\_\_ Commercial  
\_\_\_\_ Interference\_\_\_\_ Oligomer  
\_\_\_\_ SPDI\_\_\_\_ Score/Length  
\_\_\_\_ Encode/Transl

Searcher Prep &amp; Review Time: \_\_\_\_\_

\_\_\_\_ Fulltext

\_\_\_\_ Other (specify)

Online Time: \_\_\_\_\_

\_\_\_\_ Other

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Page 1

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

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FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 10:15:38 ON 17 AUG 2005

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STRUCTURE FILE UPDATES: 16 AUG 2005 HIGHEST RN 860495-66-5

DICTIONARY FILE UPDATES: 16 AUG 2005 HIGHEST RN 860495-66-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005. A new display format, IDERL, is now      *
* available and contains the CA role and document type information.  *
*
*****
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> e "2,4-pyrimidinediamine"/cn 5

E1 1 2,4-PYRIMIDINEDIACETONITRILE, 6-AMINO-5-CYANO-A2-(PHEN  
YLMETHYLENE)-/CN

E2 1 2,4-PYRIMIDINEDIACETONITRILE, 6-AMINO-5-CYANO-A4-((3-C  
YANO-4,5,6,7-TETRAHYDROBENZO(B)THIEN-2-YL)HYDRAZONO)-/CN

E3 1 --> 2,4-PYRIMIDINEDIAMINE/CN

E4 1 2,4-PYRIMIDINEDIAMINE, 1,2-DIHYDRO-N,N'-BIS(4-METHYLPHENYL)-  
1-NITRO-/CN

E5 1 2,4-PYRIMIDINEDIAMINE, 1,4-DIHYDRO-N2,N2-DIMETHYL-, ION(1-)/  
CN

=> s e3;d ide can

L1 1 "2,4-PYRIMIDINEDIAMINE"/CN

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 156-81-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

OTHER CA INDEX NAMES:

CN Pyrimidine, 2,4-diamino- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 2,4-Diaminopyrimidine

CN NSC 30856

FS 3D CONCORD

DR 42910-88-3, 42910-89-4, 42910-90-7, 42910-92-9

MF C4 H6 N4

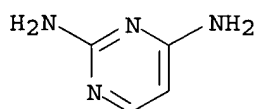
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSChem, EMBASE, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

254 REFERENCES IN FILE CA (1907 TO DATE)

44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

254 REFERENCES IN FILE CAPLUS (1907 TO DATE)

7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:138607

REFERENCE 2: 143:72294

REFERENCE 3: 142:254587

REFERENCE 4: 142:212327

REFERENCE 5: 142:74474

REFERENCE 6: 142:38288

REFERENCE 7: 141:260782

REFERENCE 8: 141:93976

REFERENCE 9: 141:76686

REFERENCE 10: 141:76353

=> e "r 921302"/cn 5

E1 1 R 91650/CN

E2 1 R 920K/CN

E3 0 --> R 921302/CN

E4 1 R 922/CN

E5 1 R 922-1/CN

=> e "r921302"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R921302/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 926891"/cn 5

E1	1	R 925SH3/CN
E2	1	R 92625/CN
E3	0 -->	R 926891/CN
E4	1	R 9298/CN
E5	3	R 930/CN

=> e "r926891"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R926891/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 940323"/cn 5

E1	1	R 9403/CN
E2	1	R 9403, HOMOPOLYMER/CN
E3	0 -->	R 940323/CN
E4	1	R 94138/CN
E5	1	R 9422/CN

=> e "r940323"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R940323/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 940347"/cn 5

E1	1	R 9403/CN
E2	1	R 9403, HOMOPOLYMER/CN
E3	0 -->	R 940347/CN
E4	1	R 94138/CN
E5	1	R 9422/CN

=> e "r940347"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R940347/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 921303"/cn 5

E1	1	R 91650/CN
E2	1	R 920K/CN
E3	0 -->	R 921303/CN
E4	1	R 922/CN
E5	1	R 922-1/CN

=> e "r921303"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R921303/CN
E4	1	R9F4K5/CN

E5 1 R9F5/CN

=> fil medl,biosis,embase,caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
7.96	8.17

FULL ESTIMATED COST

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=> s (autoimmune disease or autoimmune encephalomyelit? or rheumatoid arthrit? or  
systemic lupus erythematos? or multiple sclerosis)

L2 136215 FILE MEDLINE  
L3 119817 FILE BIOSIS  
L4 136957 FILE EMBASE  
L5 60193 FILE CAPLUS

TOTAL FOR ALL FILES

L6 453182 (AUTOIMMUNE DISEASE OR AUTOIMMUNE ENCEPHALOMYELIT? OR RHEUMATOID  
ARTHRIT? OR SYSTEMIC LUPUS ERYTHEMATOS? OR MULTIPLE SCLEROSIS)

=> s c20.111?

L7 0 FILE MEDLINE  
L8 0 FILE BIOSIS  
L9 0 FILE EMBASE

TERM '111?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED

You have entered a truncated stem which occurs in too many terms.  
Make the stem longer and try again. For example, if your original  
term was 'degr?' to search for variations and the abbreviation for  
'degradation', you could replace it with the expression '(degrdn OR  
degrad?)'. If your search term was numeric, e.g., 'C>5', reduce the  
size of the range.

=> s c20.111?/ct

L10 250623 FILE MEDLINE  
L11 50150 FILE BIOSIS  
L12 0 FILE EMBASE  
L13 0 FILE CAPLUS

TOTAL FOR ALL FILES

L14 300773 C20.111?/CT

=> s l1 or "2,4-pyrimidinediamine" or "2,4-diaminopyridine" or nsc 30856 or  
r(w) (921302 or 926891 or 940323 or 940347 or 921303) or r921302 or r926891 or  
r940323 or r940347 or r921303

L15 39 FILE MEDLINE  
L16 62 FILE BIOSIS  
L17 35 FILE EMBASE  
L18 351 FILE CAPLUS



TOTAL FOR ALL FILES

L19 487 L1 OR "2,4-PYRIMIDINEDIAMINE" OR "2,4-DIAMINOPYRIDINE" OR NSC  
30856 OR R(W) (921302 OR 926891 OR 940323 OR 940347 OR 921303)  
OR R921302 OR R926891 OR R940323 OR R940347 OR R921303

=> s l19 and (l6 or l15)

L20 39 FILE MEDLINE

<-----User Break----->

SEARCH ENDED BY USER

=> s l19 and (l6 or l14)

L22 0 FILE MEDLINE

L23 0 FILE BIOSIS

L24 1 FILE EMBASE

L25 12 FILE CAPLUS

TOTAL FOR ALL FILES

L26 13 L19 AND (L6 OR L14)

=> dup rem l26

PROCESSING COMPLETED FOR L26

L27 13 DUP REM L26 (0 DUPLICATES REMOVED)

=> d 1-13 ibib abs hitstr

L27 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158647 CAPLUS

DOCUMENT NUMBER: 142:261547

TITLE: Preparation of 2,4-  
**pyrimidinediamines** useful in the treatment of  
neoplastic diseases, inflammatory and immune system  
disorders

INVENTOR(S): Garcia-echeverria, Carlos; Kanazawa, Takanori;  
Kawahara, Eiji; Masuya, Keiichi; Matsuura, Naoko;  
Miyake, Takahiro; Ohmori, Osamu; Umemura, Ichiro;  
Steensma, Ruo; Chopiuk, Greg; Jiang, Jiqing; Wan,  
Yongqin; Ding, Qiang; Zhang, Qiong; Gray, Nathanael  
Schiander; Karanewsky, Donald

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.; IRM  
LLC

SOURCE: PCT Int. Appl., 285 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016894	A1	20050224	WO 2004-EP9099	20040813
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,			

SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG

PRIORITY APPLN. INFO.:

GB 2003-19227

A 20030815

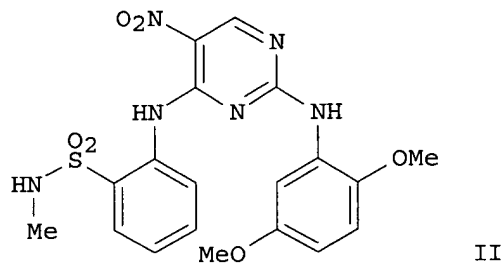
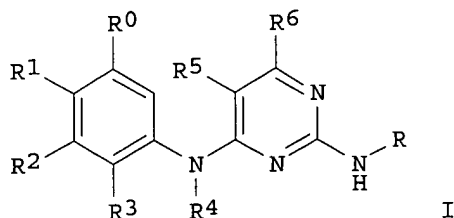
GB 2003-22370

A 20030924

OTHER SOURCE(S):

MARPAT 142:261547

GI



AB The title compds. I [R = aryl, heteroaryl, cycloalkyl and heterocycloalkyl; R0-R3 = H, alkyl, cycloalkyl, etc.; R4 = H, alkyl; R5, R6 = H, alkyl, alkoxyalkyl, etc.], useful for the manufacture of a medicament for the treatment or prevention of a disease which responds to inhibition of FAK and/or ALK and/or ZAP-70 and/or IGF-IR, were prepared and formulated. E.g., a 2-step synthesis of II, starting from 2,4-dichloro-5-nitropyrimidine and 2-amino-N-methylbenzenesulfonamide, was given. The compds. I have IC50 values in the range of 10 nM to 2 µM in cell-free ZAP-70 kinase assay.

REFERENCE COUNT:

19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158646 CAPLUS

DOCUMENT NUMBER: 142:254587

TITLE: Methods for treating or preventing **autoimmune diseases** with 2,4-pyrimidinediamine compounds

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 276 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016893	A2	20050224	WO 2004-US24716	20040730
WO 2005016893	A3	20050609		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-491641P P 20030730  
US 2003-531598P P 20031219  
US 2004-572246P P 20040518

OTHER SOURCE(S): MARPAT 142:254587

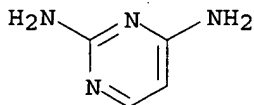
AB The invention provides methods for treating or preventing **autoimmune diseases** with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of **autoimmune diseases** that can be treated or prevented with the compds. include **rheumatoid arthritis** and/or its associated symptoms, **systemic lupus erythematosus** and/or its associated symptoms and **multiple sclerosis** and/or its associated symptoms.

IT 156-81-0D, 2,4-Pyrimidinediamine, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pyrimidinediamine compds. for treatment or prevention of **autoimmune diseases**)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:120923 CAPLUS

DOCUMENT NUMBER: 142:219300

TITLE: **2,4-Pyrimidinediamines**  
for use in the treatment or prevention of **autoimmune diseases**

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

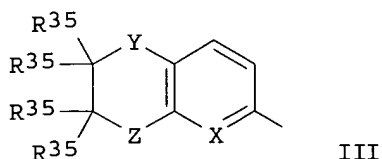
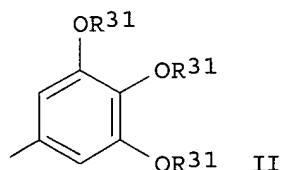
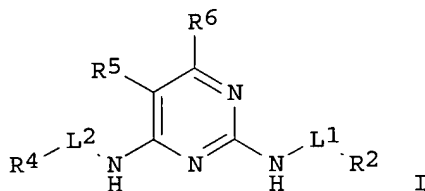
PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 169 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012294	A1	20050210	WO 2004-US24920	20040730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-491641P	P 20030730
			US 2003-531598P	P 20031219
			US 2004-572246P	P 20040518
OTHER SOURCE(S):			MARPAT 142:219300	
GI				



AB The present invention provides methods of treating or preventing **autoimmune diseases** with 2,4-pyrimidinediamine compds. I [L1, L2 = a direct bond or a linker; R2 = II; R4 = III; X = N, CH; Y, Z = O, S, SO, SO2, etc.; R5 = R6, alkyl, alkenyl, etc.; R6 = H, an electroneg. group, alkoxy, haloalkoxy, etc.; R31 = Me, alkyl; R35 = H, alkyl, cycloalkyl, etc.; or two R35 bonded together to the same carbon atom are taken together to form an oxo, (un)substituted NH], as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of **autoimmune diseases** that can be treated or prevented with the compds. I include **rheumatoid arthritis** and/or its associated symptoms, **systemic lupus erythematosus** and/or its associated symptoms and **multiple sclerosis** and/or its associated symptoms. The general procedures for synthesis of compds. I are described. The characterization data for over 500 prepared

comps. I were given in table. The comps. I were tested in various tests (e.g., inhibition of IgE-induced degranulation, inhibition of Syk kinase, etc.). For example, N4-(2,2-dimethyl-3-oxo-4H-5-pyrido[1,4]oxazin-6-yl)-5-fluoro-N2-(3,4,5-trimethoxyphenyl)-2,4-

**pyrimidinediamine** showed 99.8% inhibition of edema formation when administered at 5 mg/kg in mice.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:220155 CAPLUS

DOCUMENT NUMBER: 140:270866

TITLE: Preparation of (pyridinyl)(pyrimidinyl)imidazo[1,2-a]pyridines as TGF $\beta$  receptor type I antagonists for treatment of fibrotic disorders and tumors

INVENTOR(S): Lee, Wen-chenng; Carter, Mary Beth; Sun, Lihong; Chuaqui, Claudio; Singh, Juswinder; Boriack-Sjodin, Paula; Choi, Michael S.

PATENT ASSIGNEE(S): Biogen, Inc., USA

SOURCE: PCT Int. Appl., 142 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

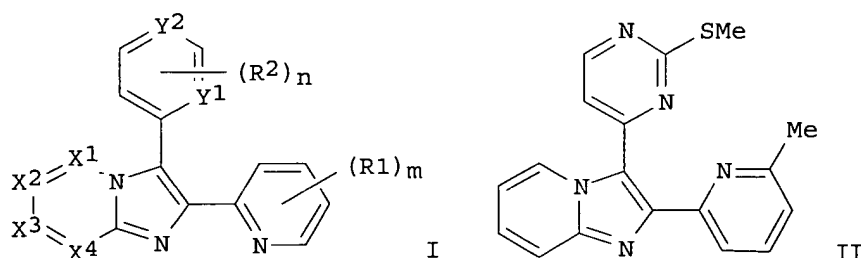
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004021989	A2	20040318	WO 2003-US27721	20030905
WO 2004021989	A3	20040923		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2497968	AA	20040318	CA 2003-2497968	20030905
EP 1546112	A2	20050629	EP 2003-752004	20030905
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003014052	A	20050705	BR 2003-14052	20030905
PRIORITY APPLN. INFO.:			US 2002-408812P	P 20020906
			WO 2003-US27721	W 20030905

OTHER SOURCE(S): MARPAT 140:270866

GI



AB Title compds. I [wherein X1, X2, X3, X4 = independently CR<sub>x</sub> or N, only two of them can be N simultaneously; Y1, Y2 = independently CR<sub>a</sub> or N, at least one of them must be N; R1 = independently alkyl, alkenyl, alkynyl, alkoxy, acyl, urea, cycloalkylsulfanyl, etc.; R2 = independently alkyl, alkenyl, alkynyl, acyl, halo, -N(alkyl)(cycloalkyl), heteroaroyl, etc.; m = 0-4; n = 0-3; Rx, Ra = independently hydrogen, alkyl, alkenyl, hydroxy, guanidino, amidino, cycloalkylcarbonylamino, etc.; and pharmaceutically acceptable salts or N-oxides thereof] were prepared as antagonists against transforming growth factor  $\beta$  (TGF $\beta$ ) family type I receptors, Alk5 and Alk4. For example, methylation of 2-mercapto-4-methylpyrimidine with MeI, followed by reaction with 6-methylpyridine-2-carboxylic acid Et ester and cyclocondensation with 2-aminopyridine, gave II. I exhibited TGF $\beta$ -induced PAI-Luciferase reporter activity with IC<sub>50</sub> values of less than 10 $\mu$ M and cytotoxicity with LD<sub>25</sub> values greater than 10 $\mu$ M. Thus, I and their pharmaceutical compns. are useful as antagonists for preventing and/or treating numerous diseases, including fibrotic disorders and tumors.

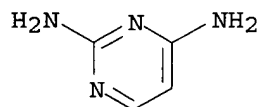
IT 156-81-0, 2,4-Diaminopyrimidine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (pyridinyl)(pyrimidinyl)imidazo[1,2-a]pyridines as TGF $\beta$  receptor type I antagonists for treatment of fibrotic disorders and tumors)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:142963 CAPLUS

DOCUMENT NUMBER: 140:199334

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Clough, Jeffrey; Keim, Holger; Sylvain, Catherine; Li, Hui; Bhamidipati, Somasekhar

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 811 pp.

CODEN: PIXXD2

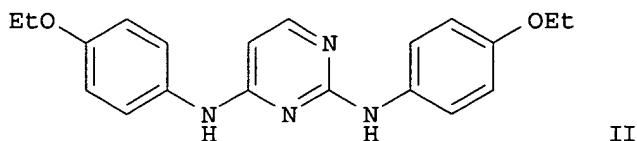
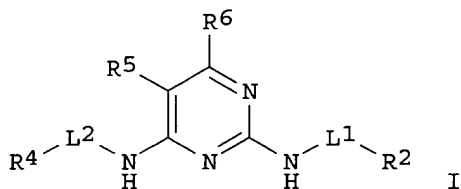
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014382	A1	20040219	WO 2003-US24087	20030729
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
CA 2492325	AA	20040219	CA 2003-2492325	20030729
EP 1534286	A1	20050601	EP 2003-784871	20030729
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
BR 2003013059	A	20050705	BR 2003-13059	20030729
US 2005038243	A1	20050217	US 2004-858343	20040601
SE 2005000203	A	20050329	SE 2005-203	20050127
PRIORITY APPLN. INFO.:			US 2002-399673P	P 20020729
			US 2003-443949P	P 20030131
			US 2003-452339P	P 20030306
			US 2003-631029	A 20030729
			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US24087	W 20030729

OTHER SOURCE(S): MARPAT 140:199334  
GI



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Title compds. I [wherein L1 and L2 = independently a bond or a

linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. Specific examples of autoimmune diseases that can be treated or prevented with I and their pharmaceutical compns. include rheumatoid arthritis, systemic lupus erythematosus, and multiple sclerosis (no data).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:20322 CAPLUS

DOCUMENT NUMBER: 140:87658

TITLE: Peptidomimetic modulators of cell adhesion

INVENTOR(S): Gour, Barbara J.; Blaschuk, Orest W.; Ali, Anmar; Ni, Feng; Chen, Zhigang; Michaud, Stephanie Denise; Wang, Shaomeng; Hu, Zengjian

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 280 pp., Cont.-in-part of U.S. Ser. No. 6,982.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 15

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004006011	A1	20040108	US 2003-425557	20030428
US 6031072	A	20000229	US 1997-893534	19970711
US 6326352	B1	20011204	US 2000-507102	20000217
US 2002168761	A1	20021114	US 2001-769145	20010124
US 2002151475	A1	20021017	US 2001-6982	20011204
US 6914044	B2	20050705		

PRIORITY APPLN. INFO.:	US 1996-21612P	P	19960712
	US 1997-893534	A1	19970711
	US 2000-491078	B2	20000124
	US 2000-507102	A1	20000217
	US 2001-769145	B2	20010124
	US 2001-6982	A2	20011204

OTHER SOURCE(S): MARPAT 140:87658

AB Peptidomimetics of cyclic peptides, and compns. comprising such peptidomimetics are provided. The peptidomimetics have a three-dimensional structure that is substantially similar to a three-dimensional structure of a cyclic peptide that comprises a cadherin cell adhesion recognition sequence HAV. Methods for using such



peptidomimetics for modulating cadherin-mediated cell adhesion in a variety of contexts are also provided.

L27 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:737756 CAPLUS

DOCUMENT NUMBER: 139:261319

TITLE: Preparation of 5-bromo-2,4-pyrimidinediamines and related compounds as cyclin dependent kinase inhibitors

INVENTOR(S): Luecking, Ulrich; Krueger, Martin; Jautelat, Rolf; Prien, Olaf; Siemeister, Gerd; Ernst, Alexander

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 116 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

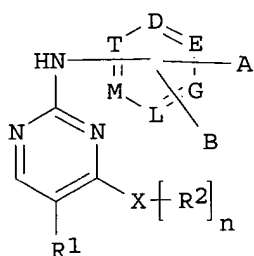
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

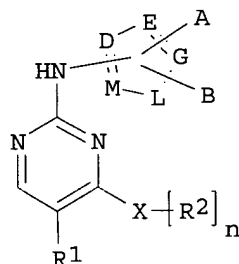
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003076437	A1	20030918	WO 2003-EP1995	20030226
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10212100	A1	20031023	DE 2002-10212100	20020311
DE 10255984	A1	20040812	DE 2002-10255984	20021126
EP 1483260	A1	20041208	EP 2003-708151	20030226
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2004063737	A1	20040401	US 2003-384787	20031027
PRIORITY APPLN. INFO.:			DE 2002-10212100	A 20020311
			DE 2002-10255984	A 20021126
			US 2002-363878P	P 20020314
			US 2002-430053P	P 20021202
			WO 2003-EP1995	W 20030226

OTHER SOURCE(S): MARPAT 139:261319

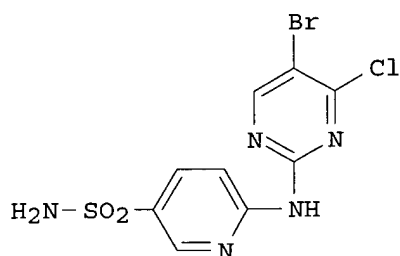
GI



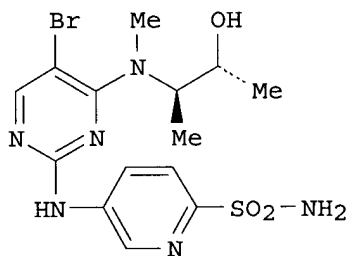
I



II



III



IV

AB Title compds. I and II [D, E, G, L, M, T = C, O, N, S atom whereby at least a heteroatom must be contained in the ring; R1 = H, halo, alkyl, etc.; R2 = H, alkyl, alkenyl, etc.; A, B = H, OH, halo, etc.; n = 0, 1 with provisos] and their pharmaceutically acceptable salts were prepared. For example, condensation of chloropyrimidine III, e.g., prepared from 5-bromo-2-chloro-4-hydroxypyrimidine in 2-steps, and threo-3-methylaminobutan-2-ol afforded pyrimidinediamine IV in 75% yield. In CDK2/CycE inhibition studies, 24-examples of compds. I exhibited IC50 values ranging from 6-74 nM. Compds. I are claimed useful as cardiovascular, antiviral, antitumor, etc. agents.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:133036 CAPLUS

DOCUMENT NUMBER: 138:180679

TITLE: SH3 protein domains and their ligands

INVENTOR(S): Booker, Grant William; Pyke, Simon Mathew; Branson, Kim Mathew; Inglis, Steven Robert

PATENT ASSIGNEE(S): Adelaide Research & Innovation Pty Ltd., Australia

SOURCE: PCT Int. Appl., 176 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013523	A1	20030220	WO 2002-AU1064	20020808
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

PRIORITY APPLN. INFO.:

AU 2001-6881

A 20010808

OTHER SOURCE(S): MARPAT 138:180679

AB The present invention relates generally to mols. capable of interaction with one or more domains within a proteinaceous mol. such as a peptide, polypeptide, protein or a macromol. comprising a proteinaceous mol. More particularly the present invention relates to mols. including ligands which are capable of interacting with, and more particularly, binding to, SH3 protein domains or homologs thereof and even more particularly to mols. including ligands which are capable of binding to SH3 domains having a three-dimensional ligand-binding site comprising a neg. charged residue and a hydrophobic residue linearly separated by at least five amino acid residues. The subject invention is preferably directed to the use of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline and derivs., homologs, analogs and mimetics thereof or pharmaceutically acceptable salts thereof which interact with SH3 domains, and more particularly to the binding of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline and derivs. analogs and mimetics to SH3 domains as defined above. The present invention contemplates the use of a three dimensional structure of the subject SH3 domain to identify, screen and design amino-substituted and amino-substituted pyridines and aminoquinolines capable of binding to an SH3 domain. The present invention is also useful for the in silico selection of derivs. homologs, analogs and mimetics of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline capable of binding to SH3 domains. The ligands of the present invention are useful in the development of a range of therapeutic and diagnostic agents.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:91269 CAPLUS

DOCUMENT NUMBER: 139:62596

TITLE: Imidazopyrimidines, potent inhibitors of p38 MAP kinase

AUTHOR(S): Rupert, Kenneth C.; Henry, James R.; Dodd, John H.;  
 Wadsworth, Scott A.; Cavender, Druie E.; Olini,  
 Gilbert C.; Fahmy, Bohumila; Siekierka, John J.

CORPORATE SOURCE: L.L.C., Drug Discovery, Johnson & Johnson  
 Pharmaceutical Research and Development, Raritan, NJ,  
 08869, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003),  
 13(3), 347-350  
 CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

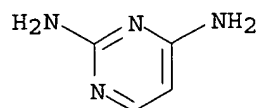
DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:62596

AB The MAP kinase p38 is implicated in the release of the pro-inflammatory cytokines TNF- $\alpha$  and IL-1 $\beta$ . Inhibition of cytokine release may be a useful treatment for inflammatory conditions such as **rheumatoid arthritis** and Crohn's disease. A novel series of imidazopyrimidines have been discovered that potently inhibit p38 and suppress the production of TNF- $\alpha$  in vivo.

IT 156-81-0, 2,4-Pyrimidinediamine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (imidazopyrimidines, potent inhibitors of p38 MAP kinase)  
 RN 156-81-0 CAPLUS  
 CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)

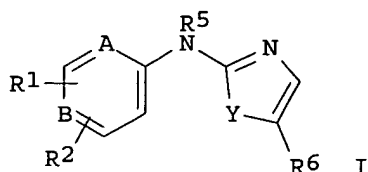


REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:449449 CAPLUS  
 DOCUMENT NUMBER: 137:33318  
 TITLE: Preparation of pyrimidinylaminothiazoles as tyrosine kinase inhibitors.  
 INVENTOR(S): Bilodeau, Mark T.; Hartman, George D.; Hoffman, Jacob M., Jr.; Lumma, William C., Jr.; Manley, Peter J.; Rodman, Leonard; Sisko, John T.; Smith, Anthony M.; Tucker, Thomas J.  
 PATENT ASSIGNEE(S): Merck & Co., Inc., USA  
 SOURCE: PCT Int. Appl., 169 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045652	A2	20020613	WO 2001-US44573	20011130
WO 2002045652	A3	20020822		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002137755	A1	20020926	US 2001-990473	20011121
CA 2429728	AA	20020613	CA 2001-2429728	20011130
AU 2002032441	A5	20020618	AU 2002-32441	20011130
EP 1341540	A2	20030910	EP 2001-991965	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004524282	T2	20040812	JP 2002-547438	20011130
US 2004063720	A1	20040401	US 2003-677687	20031002
PRIORITY APPLN. INFO.:			US 2000-251006P	P 20001204
			US 2001-990473	A1 20011121
			WO 2001-US44573	W 20011130

OTHER SOURCE(S): MARPAT 137:33318  
 GI

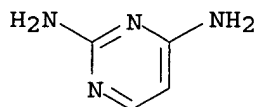


AB Title compds. [I; A, B = N, NO; Y = O, S, NR<sub>4</sub>; R<sub>1</sub>, R<sub>2</sub> = H, perfluoroalkoxy, OH, cyano, halo, (substituted) alkyl(oxy)(carbonyl), aryl(oxy)(carbonyl), heterocyclyl, etc.; R<sub>4</sub> = H, aryl, alkyl; R<sub>5</sub> = H, SO<sub>2</sub>Rc, CORc, Rc, CO<sub>2</sub>Rc; R<sub>6</sub> = aryl, cyano, halo, (substituted) alkyl, alkenyl, alkynyl, heterocyclyl, aminocarbonyl; Rc = alkyl, aryl, heterocyclyl], were prepared for treating angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammation, etc. Thus, 4-aminopyrimidine was stirred with NaH in THF; 2-bromo-5-phenylthiazole was added and the mixture was refluxed overnight to give 5-phenylthiazol-2-yl pyrimidin-4-yl amine. I inhibited vascular endothelial growth factor-stimulated mitogenesis of human vascular endothelial cells with IC<sub>50</sub> = 0.01-5.0 nM.

IT 156-81-0, 2,4-Diaminopyrimidine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of pyrimidinylaminothiazoles as tyrosine kinase inhibitors)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:869496 CAPLUS

DOCUMENT NUMBER: 137:363033

TITLE: Peptidomimetic modulators of cell adhesion

INVENTOR(S): Gour, Barbara J.; Blaschuk, Orest W.; Ali, Anmar; Ni, Feng; Chen, Zhigang; Michaud, Stephanie D.; Wang, Shoameng; Hu, Zenzian

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 309 pp., Cont.-in-part of U.S. Ser. No. 491,078.  
 CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 15

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002168761	A1	20021114	US 2001-769145	20010124
US 2004058864	A1	20040325	US 2003-412701	20030410
US 2004006011	A1	20040108	US 2003-425557	20030428
PRIORITY APPLN. INFO.:			US 2000-491078	A2 20000124
			US 1996-21612P	P 19960712
			US 1997-893534	A1 19970711

US 2000-507102 A1 20000217  
 US 2001-769145 B1 20010124  
 US 2001-6982 A2 20011204

OTHER SOURCE(S): MARPAT 137:363033

AB Peptidomimetics of cyclic peptides, and compns. comprising such peptidomimetics are provided. The peptidomimetics have a three-dimensional structure that is substantially similar to a three-dimensional structure of a cyclic peptide that comprises a cadherin cell adhesion recognition sequence HAV. Methods for using such peptidomimetics for modulating cadherin-mediated cell adhesion in a variety of contexts are also provided.

L27 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:457043 CAPLUS

DOCUMENT NUMBER: 133:89537

TITLE: Preparation of 2,4-pyrimidinediamine derivatives as anticancer agents

INVENTOR(S): Bradbury, Robert Hugh; Breault, Gloria Anne; Jewsbury, Philip John; Pease, Janet Elizabeth

PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK

SOURCE: PCT Int. Appl., 137 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

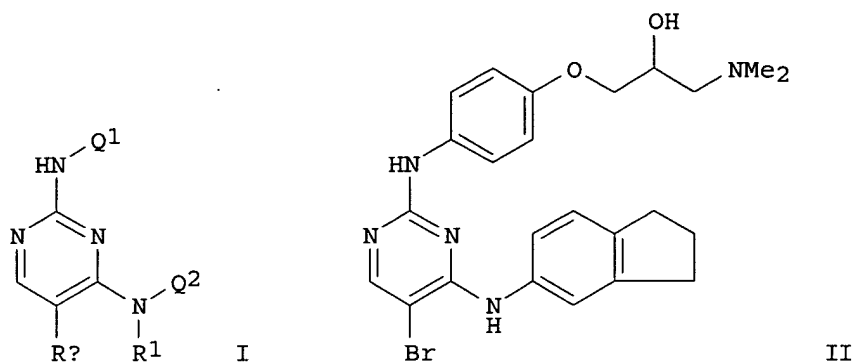
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039101	A1	20000706	WO 1999-GB4325	19991220
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2352896	AA	20000706	CA 1999-2352896	19991220
EP 1140860	A1	20011010	EP 1999-962375	19991220
EP 1140860	B1	20040922		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9916590	A	20011023	BR 1999-16590	19991220
JP 2002533446	T2	20021008	JP 2000-591012	19991220
AU 763091	B2	20030710	AU 2000-18743	19991220
NZ 512118	A	20030829	NZ 1999-512118	19991220
AT 277020	E	20041015	AT 1999-962375	19991220
ES 2228145	T3	20050401	ES 1999-962375	19991220
ZA 2001004413	A	20020829	ZA 2001-4413	20010529
NO 2001003038	A	20010822	NO 2001-3038	20010619
US 6593326	B1	20030715	US 2001-868602	20010823
PRIORITY APPLN. INFO.:			GB 1998-28511	A 19981224
			WO 1999-GB4325	W 19991220

OTHER SOURCE(S): MARPAT 133:89537

GI



AB The present invention relates to the title compds. (I) [wherein R1 = H, (un)substituted alkyl, alkenyl, or alkynyl, benzyl, 2-phenylethyl, phthalimidoalkyl, or cycloalkylalkyl; Rx = halo, OH, NO2, NH2, CN, SH, CO2H, SO2NH2, NHCHO, ureido, etc.; Q1 and Q2 = independently (un)substituted aryl, 5- or 6-membered monocycle, or 9- or 10-membered bicyclic heterocycle], processes for their manufacture, and pharmaceutical compns. containing them. For example, addition of 4-[2-hydroxy-3-(N,N-dimethylamino)propoxy]aniline•HCl in MeOH to 5-bromo-2-chloro-4-(indan-5-ylamino)pyrimidine in BuOH (preps. given) and heating to 100°C for 18 h gave II (42%). I inhibited the effects of cyclin-dependent serine/threonine kinases (CDKs), showing selectivity for CDK2 (no data), CDK4 (IC50 ranging from 0.02 μM to 0.07 μM), and CDK6 (no data). In a tyrosine kinase activity assay using Sf21 cells transfected with plaque-pure FAK recombinant virus, I also inhibited focal adhesion kinase 3 (FAK3) with IC50 ranging from 0.032 μM to 0.07 μM. Typical IC50 values for I when tested for inhibition of cell growth in an Sulforhodamine B (SRB) assay were in the range of 1 mM to 1 nM. Thus, I possess anti-cancer properties, including anti-cell-migration, antiproliferation and/or apoptotic properties. Such properties are expected to be of value in the treatment of disease states associated with aberrant cell cycles and cell proliferation such as cancers (solid tumors and leukemias), fibroproliferative and differentiative disorders, psoriasis, **rheumatoid arthritis**, Kaposi's sarcoma, hemangioma, acute and chronic nephropathies, atheroma, atherosclerosis, arterial restenosis, **autoimmune diseases**, acute and chronic inflammation, bone diseases, and ocular diseases with retinal vessel proliferation.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 13 OF 13 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 91081327 EMBASE

DOCUMENT NUMBER: 1991081327

TITLE: Therapy of acute and chronic **multiple sclerosis**.

AUTHOR: Tindall R.S.A.

CORPORATE SOURCE: Department of Neurology, University of Southern California, Los Angeles Veterans Administration Facility, 425 South Hill Street, Los Angeles, CA 90013, United States

SOURCE: Comprehensive Therapy, (1991) Vol. 17, No. 1, pp. 18-25.  
ISSN: 0098-8243 CODEN: COTHD3

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 008 Neurology and Neurosurgery  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LANGUAGE: English  
ENTRY DATE: Entered STN: 911216  
Last Updated on STN: 911216  
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

=> s singh r?/au;s argade a?/au;s payan d?/au  
L28 2983 FILE MEDLINE  
L29 7931 FILE BIOSIS  
L30 2556 FILE EMBASE  
L31 9987 FILE CAPLUS

TOTAL FOR ALL FILES  
L32 23457 SINGH R?/AU

L33 1 FILE MEDLINE  
L34 8 FILE BIOSIS  
L35 7 FILE EMBASE  
L36 21 FILE CAPLUS

TOTAL FOR ALL FILES  
L37 37 ARGADE A?/AU

L38 144 FILE MEDLINE  
L39 206 FILE BIOSIS  
L40 138 FILE EMBASE  
L41 158 FILE CAPLUS

TOTAL FOR ALL FILES  
L42 646 PAYAN D?/AU

=> s l32 and l37 and l42  
L43 0 FILE MEDLINE  
L44 1 FILE BIOSIS  
L45 0 FILE EMBASE  
L46 2 FILE CAPLUS

TOTAL FOR ALL FILES  
L47 3 L32 AND L37 AND L42

=> s l47 not l26  
L48 0 FILE MEDLINE  
L49 1 FILE BIOSIS  
L50 0 FILE EMBASE  
L51 1 FILE CAPLUS

TOTAL FOR ALL FILES  
L52 2 L47 NOT L26

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PROCESSING COMPLETED FOR L52  
L53 2 DUP REM L52 (0 DUPLICATES REMOVED)

=> d ibib abs 1-2



L53 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:610204 CAPLUS

DOCUMENT NUMBER: 139:164801

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue destruction

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Molineaux, Susan; Holland, Sacha J.; Clough, Jeffrey; Keim, Holger; Bhamidipati, Somasekhar; Sylvain, Catherine; Li, Weigun; Rossi, Alexander B.

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 648 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

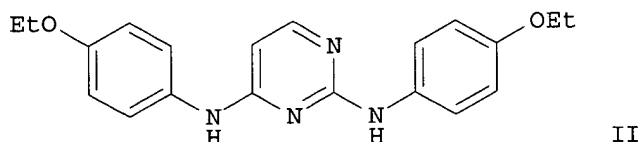
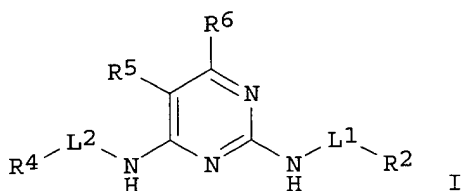
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063794	A2	20030807	WO 2003-US3022	20030131
WO 2003063794	A3	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2474277	AA	20030807	CA 2003-2474277	20030131
US 2004029902	A1	20040212	US 2003-355543	20030131
EP 1471915	A2	20041103	EP 2003-707654	20030131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005516046	T2	20050602	JP 2003-563490	20030131
US 2005038243	A1	20050217	US 2004-858343	20040601
PRIORITY APPLN. INFO.:				
			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-399673P	P 20020729
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US3022	W 20030131

OTHER SOURCE(S): MARPAT 139:164801  
GI



AB Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. The treatment and prevention of allergic diseases, low grade scarring, diseases associated with tissue destruction, diseases associated with tissue inflammation, inflammation, and scarring are targeted uses (no data).

L53 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2002:165568 BIOSIS  
 DOCUMENT NUMBER: PREV200200165568  
 TITLE: Development and utilization of cultured human mast cells for high throughput small molecule drug discovery.  
 AUTHOR(S): Rossi, Alexander [Reprint author]; Holland, Sacha [Reprint author]; Woronicz, John [Reprint author]; Quast, Jeff [Reprint author]; **Argade, Ankush**; Sylvain, Catherine; Juencke, Sara; Sula, Caroline; Tombo, Wendy [Reprint author]; Goodrich, Bethany; Pine, Polly; Scheerens, Heleen; Natarajan, Gita; Li, Wenbao; Bennett, Mark [Reprint author]; Daniel, Ruby; Wagner, Gregory; **Singh, Rajinder**; Molineaux, Susan [Reprint author]; **Payan, Donald**  
 CORPORATE SOURCE: Cell Biology, Rigel Pharmaceuticals, Inc., 240 East Grand Avenue, So. San Francisco, CA, 94080, USA  
 SOURCE: Molecular Biology of the Cell, (Nov, 2001) Vol. 12, No. Supplement, pp. 512a-513a. print.  
 Meeting Info.: 41st Annual Meeting of the American Society

for Cell Biology. Washington DC, USA. December 08-12, 2001.  
American Society for Cell Biology.  
CODEN: MBCEEV. ISSN: 1059-1524.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 5 Mar 2002  
Last Updated on STN: 5 Mar 2002

=> s keim h?/au;s bhamidipati s?/au;s sylvain c?/au;s li h?/au

L54 84 FILE MEDLINE  
L55 57 FILE BIOSIS  
L56 57 FILE EMBASE  
L57 70 FILE CAPLUS

TOTAL FOR ALL FILES

L58 268 KEIM H?/AU

L59 8 FILE MEDLINE  
L60 18 FILE BIOSIS  
L61 7 FILE EMBASE  
L62 16 FILE CAPLUS

TOTAL FOR ALL FILES

L63 49 BHAMIDIPATI S?/AU

L64 8 FILE MEDLINE  
L65 13 FILE BIOSIS  
L66 11 FILE EMBASE  
L67 10 FILE CAPLUS

TOTAL FOR ALL FILES

L68 42 SYLVAIN C?/AU

L69 5342 FILE MEDLINE  
L70 6316 FILE BIOSIS  
L71 4069 FILE EMBASE  
L72 21181 FILE CAPLUS

TOTAL FOR ALL FILES

L73 36908 LI H?/AU

=> s l58 and l63 and l68 and l73

L74 0 FILE MEDLINE  
L75 0 FILE BIOSIS  
L76 0 FILE EMBASE  
L77 3 FILE CAPLUS

TOTAL FOR ALL FILES

L78 3 L58 AND L63 AND L68 AND L73

=> s l78 not l52

L79 0 FILE MEDLINE  
L80 0 FILE BIOSIS  
L81 0 FILE EMBASE  
L82 3 FILE CAPLUS

## TOTAL FOR ALL FILES

L83 3 L78 NOT L52

=&gt; d 1-3 ibib abs

L83 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158646 CAPLUS

DOCUMENT NUMBER: 142:254587

TITLE: Methods for treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compounds

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui;  
**Bhamidipati, Somasekhar**; Carroll, David;  
**Sylvain, Catherine**; Clough, Jeffrey;  
**Keim, Holger**

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 276 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016893	A2	20050224	WO 2004-US24716	20040730
WO 2005016893	A3	20050609		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:	US 2003-491641P	P	20030730
	US 2003-531598P	P	20031219
	US 2004-572246P	P	20040518

OTHER SOURCE(S): MARPAT 142:254587

AB The invention provides methods for treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of autoimmune diseases that can be treated or prevented with the compds. include rheumatoid arthritis and/or its associated symptoms, systemic lupus erythematosus and/or its associated symptoms and multiple sclerosis and/or its associated symptoms.

L83 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:120923 CAPLUS

DOCUMENT NUMBER: 142:219300

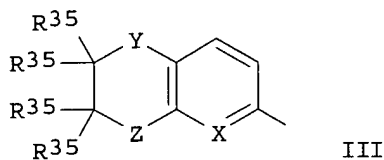
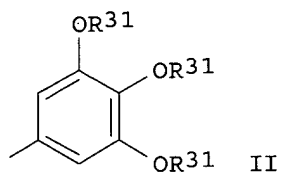
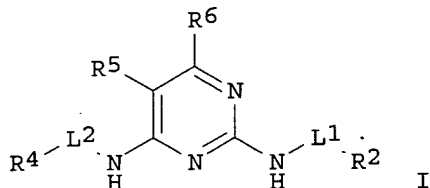
TITLE: 2,4-Pyrimidinediamines for use in the treatment or prevention of autoimmune diseases

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui;  
**Bhamidipati, Somasekhar**; Carroll, David;  
**Sylvain, Catherine**; Clough, Jeffrey;  
**Keim, Holger**

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 169 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012294	A1	20050210	WO 2004-US24920	20040730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-491641P	P 20030730
			US 2003-531598P	P 20031219
			US 2004-572246P	P 20040518
OTHER SOURCE(S):			MARPAT 142:219300	
GI				



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds. I [L1, L2 = a direct bond or a linker; R2 = II; R4 = III; X = N, CH; Y, Z = O, S, SO, SO2, etc.; R5 = R6, alkyl, alkenyl, etc.; R6 = H, an electroneg. group, alkoxy, haloalkoxy, etc.; R31 = Me, alkyl; R35 = H, alkyl, cycloalkyl, etc.; or two R35 bonded together to the same carbon atom are taken together to form an oxo, (un)substituted NH], as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of autoimmune diseases that can be treated or prevented with the compds. I include rheumatoid arthritis and/or its associated symptoms, systemic lupus erythematosus and/or its associated symptoms and multiple sclerosis and/or its associated symptoms. The general procedures

for synthesis of compds. I are described. The characterization data for over 500 prepared compds. I were given in table. The compds. I were tested in various tests (e.g., inhibition of IgE-induced degranulation, inhibition of Syk kinase, etc.). For example, N4-(2,2-dimethyl-3-oxo-4H-5-pyrido[1,4]oxazin-6-yl)-5-fluoro-N2-(3,4,5-trimethoxyphenyl)-2,4-pyrimidinediamine showed 99.8% inhibition of edema formation when administered at 5 mg/kg in mice.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:142963 CAPLUS

DOCUMENT NUMBER: 140:199334

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Clough, Jeffrey; Keim, Holger; Sylvain, Catherine; Li, Hui; Bhamidipati, Somasekhar

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 811 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

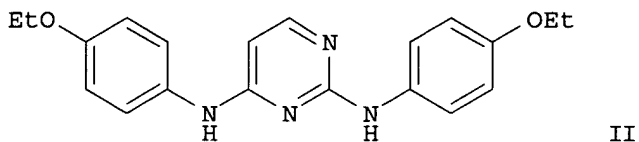
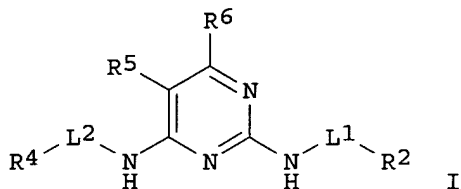
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014382	A1	20040219	WO 2003-US24087	20030729
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
CA 2492325	AA	20040219	CA 2003-2492325	20030729
EP 1534286	A1	20050601	EP 2003-784871	20030729
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
BR 2003013059	A	20050705	BR 2003-13059	20030729
US 2005038243	A1	20050217	US 2004-858343	20040601
SE 2005000203	A	20050329	SE 2005-203	20050127
PRIORITY APPLN. INFO.:			US 2002-399673P	P 20020729
			US 2003-443949P	P 20030131
			US 2003-452339P	P 20030306
			US 2003-631029	A 20030729
			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US24087	W 20030729

OTHER SOURCE(S): MARPAT 140:199334

GI



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. Specific examples of autoimmune diseases that can be treated or prevented with I and their pharmaceutical compns. include rheumatoid arthritis, systemic lupus erythematosus, and multiple sclerosis (no data).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> dis his

(FILE 'HOME' ENTERED AT 10:15:21 ON 17 AUG 2005)

FILE 'REGISTRY' ENTERED AT 10:15:38 ON 17 AUG 2005

E "2,4-PYRIMIDINEDIAMINE"/CN 5  
 L1 1 S E3  
 E "R 921302"/CN 5  
 E "R921302"/CN 5  
 E "R 926891"/CN 5

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

E "R926891"/CN 5  
 E "R 940323"/CN 5  
 E "R940323"/CN 5  
 E "R 940347"/CN 5  
 E "R940347"/CN 5  
 E "R 921303"/CN 5  
 E "R921303"/CN 5

FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS' ENTERED AT 10:17:20 ON 17 AUG 2005

L2 136215 FILE MEDLINE  
 L3 119817 FILE BIOSIS  
 L4 136957 FILE EMBASE  
 L5 60193 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L6 453182 S (AUTOIMMUNE DISEASE OR AUTOIMMUNE ENCEPHALOMYELIT? OR RHEUMAT  
 L7 0 FILE MEDLINE  
 L8 0 FILE BIOSIS  
 L9 0 FILE EMBASE  
 L10 250623 FILE MEDLINE  
 L11 50150 FILE BIOSIS  
 L12 0 FILE EMBASE  
 L13 0 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L14 300773 S C20.111?/CT  
 L15 39 FILE MEDLINE  
 L16 62 FILE BIOSIS  
 L17 35 FILE EMBASE  
 L18 351 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L19 487 S L1 OR "2,4-PYRIMIDINEDIAMINE" OR "2,4-DIAMINOPYRIDINE" OR NSC  
 L20 39 FILE MEDLINE  
 L21 62 FILE BIOSIS  
 L22 0 FILE MEDLINE  
 L23 0 FILE BIOSIS  
 L24 1 FILE EMBASE  
 L25 12 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L26 13 S L19 AND (L6 OR L14)  
 L27 13 DUP REM L26 (0 DUPLICATES REMOVED)  
 L28 2983 FILE MEDLINE  
 L29 7931 FILE BIOSIS  
 L30 2556 FILE EMBASE  
 L31 9987 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L32 23457 S SINGH R?/AU  
 L33 1 FILE MEDLINE  
 L34 8 FILE BIOSIS  
 L35 7 FILE EMBASE  
 L36 21 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L37 37 S ARGAGE A?/AU  
 L38 144 FILE MEDLINE  
 L39 206 FILE BIOSIS  
 L40 138 FILE EMBASE  
 L41 158 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L42 646 S PAYAN D?/AU  
 L43 0 FILE MEDLINE  
 L44 1 FILE BIOSIS  
 L45 0 FILE EMBASE



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L46          2 FILE CAPLUS
TOTAL FOR ALL FILES
L47          3 S L32 AND L37 AND L42
L48          0 FILE MEDLINE
L49          1 FILE BIOSIS
L50          0 FILE EMBASE
L51          1 FILE CAPLUS
TOTAL FOR ALL FILES
L52          2 S L47 NOT L26
L53          2 DUP REM L52 (0 DUPLICATES REMOVED)
L54          84 FILE MEDLINE
L55          57 FILE BIOSIS
L56          57 FILE EMBASE
L57          70 FILE CAPLUS
TOTAL FOR ALL FILES
L58          268 S KEIM H?/AU
L59          8 FILE MEDLINE
L60          18 FILE BIOSIS
L61          7 FILE EMBASE
L62          16 FILE CAPLUS
TOTAL FOR ALL FILES
L63          49 S BHAMIDIPATI S?/AU
L64          8 FILE MEDLINE
L65          13 FILE BIOSIS
L66          11 FILE EMBASE
L67          10 FILE CAPLUS
TOTAL FOR ALL FILES
L68          42 S SYLVAIN C?/AU
L69          5342 FILE MEDLINE
L70          6316 FILE BIOSIS
L71          4069 FILE EMBASE
L72          21181 FILE CAPLUS
TOTAL FOR ALL FILES
L73          36908 S LI H?/AU
L74          0 FILE MEDLINE
L75          0 FILE BIOSIS
L76          0 FILE EMBASE
L77          3 FILE CAPLUS
TOTAL FOR ALL FILES
L78          3 S L58 AND L63 AND L68 AND L73
L79          0 FILE MEDLINE
L80          0 FILE BIOSIS
L81          0 FILE EMBASE
L82          3 FILE CAPLUS
TOTAL FOR ALL FILES
L83          3 S L78 NOT L52

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=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
138.76	146.93

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-11.68	-11.68

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 10:26:10 ON 17 AUG 2005

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Page 1

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 10:15:38 ON 17 AUG 2005

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 16 AUG 2005 HIGHEST RN 860495-66-5

DICTIONARY FILE UPDATES: 16 AUG 2005 HIGHEST RN 860495-66-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> e "2,4-pyrimidinediamine"/cn 5

E1 1 2,4-PYRIMIDINEDIACETONITRILE, 6-AMINO-5-CYANO-A2-(PHEN  
YLMETHYLENE) -/CN  
E2 1 2,4-PYRIMIDINEDIACETONITRILE, 6-AMINO-5-CYANO-A4-((3-C  
YANO-4,5,6,7-TETRAHYDROBENZO(B) THIEN-2-YL) HYDRAZONO) -/CN  
E3 1 --> 2,4-PYRIMIDINEDIAMINE/CN  
E4 1 2,4-PYRIMIDINEDIAMINE, 1,2-DIHYDRO-N,N'-BIS(4-METHYLPHENYL) -  
1-NITRO-/CN  
E5 1 2,4-PYRIMIDINEDIAMINE, 1,4-DIHYDRO-N2,N2-DIMETHYL-, ION(1-)/  
CN

=> s e3;d ide can

L1 1 "2,4-PYRIMIDINEDIAMINE"/CN

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 156-81-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

OTHER CA INDEX NAMES:

CN Pyrimidine, 2,4-diamino- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 2,4-Diaminopyrimidine

CN NSC 30856

FS 3D CONCORD

DR 42910-88-3, 42910-89-4, 42910-90-7, 42910-92-9

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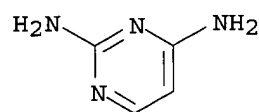
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, EMBASE, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

254 REFERENCES IN FILE CA (1907 TO DATE)  
 44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 254 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:138607

REFERENCE 2: 143:72294

REFERENCE 3: 142:254587

REFERENCE 4: 142:212327

REFERENCE 5: 142:74474

REFERENCE 6: 142:38288

REFERENCE 7: 141:260782

REFERENCE 8: 141:93976

REFERENCE 9: 141:76686

REFERENCE 10: 141:76353

=> e "r 921302"/cn 5

E1 1 R 91650/CN

E2 1 R 920K/CN

E3 0 --> R 921302/CN

E4 1 R 922/CN

E5 1 R 922-1/CN

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E1	1	R9 STEEL/CN
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E4	1	R9F4K5/CN
E5	1	R9F5/CN

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E4	1	R 9298/CN
E5	3	R 930/CN

=> e "r926891"/cn 5

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E2	1	R900/CN
E3	0 -->	R926891/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 940323"/cn 5

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E2	1	R 9403, HOMOPOLYMER/CN
E3	0 -->	R 940323/CN
E4	1	R 94138/CN
E5	1	R 9422/CN

=> e "r940323"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R940323/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

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E1	1	R 9403/CN
E2	1	R 9403, HOMOPOLYMER/CN
E3	0 -->	R 940347/CN
E4	1	R 94138/CN
E5	1	R 9422/CN

=> e "r940347"/cn 5

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E2	1	R900/CN
E3	0 -->	R940347/CN
E4	1	R9F4K5/CN
E5	1	R9F5/CN

=> e "r 921303"/cn 5

E1	1	R 91650/CN
E2	1	R 920K/CN
E3	0 -->	R 921303/CN
E4	1	R 922/CN
E5	1	R 922-1/CN

=> e "r921303"/cn 5

E1	1	R9 STEEL/CN
E2	1	R900/CN
E3	0 -->	R921303/CN
E4	1	R9F4K5/CN

E5 1 R9F5/CN

=> fil medl,biosis,embase,caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
7.96	8.17

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 10:17:20 ON 17 AUG 2005

FILE 'BIOSIS' ENTERED AT 10:17:20 ON 17 AUG 2005  
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FILE 'EMBASE' ENTERED AT 10:17:20 ON 17 AUG 2005  
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FILE 'CAPLUS' ENTERED AT 10:17:20 ON 17 AUG 2005  
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=> s (autoimmune disease or autoimmune encephalomyelit? or rheumatoid arthrit? or systemic lupus erythematos? or multiple sclerosis)

L2 136215 FILE MEDLINE  
L3 119817 FILE BIOSIS  
L4 136957 FILE EMBASE  
L5 60193 FILE CAPLUS

TOTAL FOR ALL FILES

L6 453182 (AUTOIMMUNE DISEASE OR AUTOIMMUNE ENCEPHALOMYELIT? OR RHEUMATOID ARTHRIT? OR SYSTEMIC LUPUS ERYTHEMATOS? OR MULTIPLE SCLEROSIS)

=> s c20.111?

L7 0 FILE MEDLINE  
L8 0 FILE BIOSIS  
L9 0 FILE EMBASE

TERM '111?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED

You have entered a truncated stem which occurs in too many terms.  
Make the stem longer and try again. For example, if your original term was 'degr?' to search for variations and the abbreviation for 'degradation', you could replace it with the expression '(degrdn OR degrad?)'. If your search term was numeric, e.g., 'C>5', reduce the size of the range.

=> s c20.111?/ct

L10 250623 FILE MEDLINE  
L11 50150 FILE BIOSIS  
L12 0 FILE EMBASE  
L13 0 FILE CAPLUS

TOTAL FOR ALL FILES

L14 300773 C20.111?/CT

=> s l1 or "2,4-pyrimidinediamine" or "2,4-diaminopyridine" or nsc 30856 or r(w) (921302 or 926891 or 940323 or 940347 or 921303) or r921302 or r926891 or r940323 or r940347 or r921303

L15 39 FILE MEDLINE  
L16 62 FILE BIOSIS  
L17 35 FILE EMBASE  
L18 351 FILE CAPLUS

## TOTAL FOR ALL FILES

L19 487 L1 OR "2,4-PYRIMIDINEDIAMINE" OR "2,4-DIAMINOPYRIDINE" OR NSC  
30856 OR R(W) (921302 OR 926891 OR 940323 OR 940347 OR 921303)  
OR R921302 OR R926891 OR R940323 OR R940347 OR R921303

=> s l19 and (l6 or l15)

L20 39 FILE MEDLINE

<-----User Break----->

SEARCH ENDED BY USER

=> s l19 and (l6 or l14)

L22 0 FILE MEDLINE

L23 0 FILE BIOSIS

L24 1 FILE EMBASE

L25 12 FILE CAPLUS

## TOTAL FOR ALL FILES

L26 13 L19 AND (L6 OR L14)

=> dup rem l26

PROCESSING COMPLETED FOR L26

L27 13 DUP REM L26 (0 DUPLICATES REMOVED)

=> d 1-13 ibib abs hitstr

L27 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158647 CAPLUS

DOCUMENT NUMBER: 142:261547

TITLE: Preparation of 2,4-pyrimidinediamines useful in the treatment of neoplastic diseases, inflammatory and immune system disorders

INVENTOR(S): Garcia-echeverria, Carlos; Kanazawa, Takanori; Kawahara, Eiji; Masuya, Keiichi; Matsuura, Naoko; Miyake, Takahiro; Ohmori, Osamu; Umemura, Ichiro; Steensma, Ruo; Chopiuk, Greg; Jiang, Jiqing; Wan, Yongqin; Ding, Qiang; Zhang, Qiong; Gray, Nathanael Schiander; Karanewsky, Donald

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.; IRM LLC

SOURCE: PCT Int. Appl., 285 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

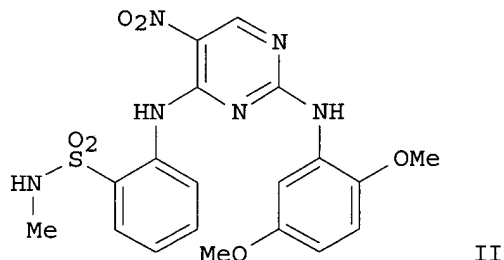
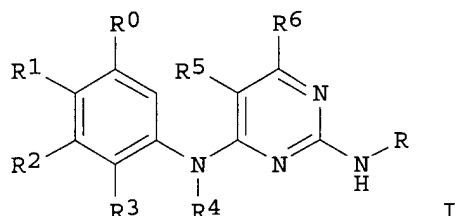
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016894	A1	20050224	WO 2004-EP9099	20040813
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,			

SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG  
 PRIORITY APPLN. INFO.: GB 2003-19227 A 20030815  
 GB 2003-22370 A 20030924  
 OTHER SOURCE(S): MARPAT 142:261547  
 GI



AB The title compds. I [R = aryl, heteroaryl, cycloalkyl and heterocycloalkyl; R0-R3 = H, alkyl, cycloalkyl, etc.; R4 = H, alkyl; R5, R6 = H, alkyl, alkoxyalkyl, etc.], useful for the manufacture of a medicament for the treatment or prevention of a disease which responds to inhibition of FAK and/or ALK and/or ZAP-70 and/or IGF-IR, were prepared and formulated. E.g., a 2-step synthesis of II, starting from 2,4-dichloro-5-nitropyrimidine and 2-amino-N-methylbenzenesulfonamide, was given. The compds. I have IC50 values in the range of 10 nM to 2 µM in cell-free ZAP-70 kinase assay.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158646 CAPLUS

DOCUMENT NUMBER: 142:254587

TITLE: Methods for treating or preventing **autoimmune diseases** with **2,4-pyrimidinediamine** compounds

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 276 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3



## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016893	A2	20050224	WO 2004-US24716	20040730
WO 2005016893	A3	20050609		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-491641P P 20030730  
US 2003-531598P P 20031219  
US 2004-572246P P 20040518

OTHER SOURCE(S): MARPAT 142:254587

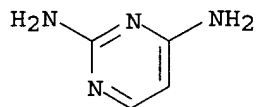
AB The invention provides methods for treating or preventing **autoimmune diseases** with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of **autoimmune diseases** that can be treated or prevented with the compds. include **rheumatoid arthritis** and/or its associated symptoms, **systemic lupus erythematosus** and/or its associated symptoms and **multiple sclerosis** and/or its associated symptoms.

IT 156-81-0D, 2,4-Pyrimidinediamine, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pyrimidinediamine compds. for treatment or prevention of **autoimmune diseases**)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:120923 CAPLUS

DOCUMENT NUMBER: 142:219300

TITLE: 2,4-Pyrimidinediamines

for use in the treatment or prevention of **autoimmune diseases**

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 169 pp.

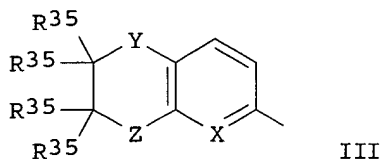
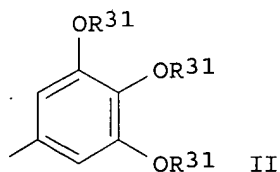
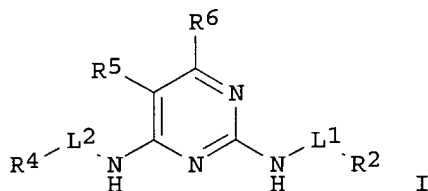
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012294	A1	20050210	WO 2004-US24920	20040730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-491641P	P 20030730
			US 2003-531598P	P 20031219
			US 2004-572246P	P 20040518

OTHER SOURCE(S): MARPAT 142:219300  
 GI



AB The present invention provides methods of treating or preventing **autoimmune diseases** with 2,4-pyrimidinediamine compds. I [L1, L2 = a direct bond or a linker; R2 = II; R4 = III; X = N, CH; Y, Z = O, S, SO, SO2, etc.; R5 = R6, alkyl, alkenyl, etc.; R6 = H, an electroneg. group, alkoxy, haloalkoxy, etc.; R31 = Me, alkyl; R35 = H, alkyl, cycloalkyl, etc.; or two R35 bonded together to the same carbon atom are taken together to form an oxo, (un)substituted NH], as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of **autoimmune diseases** that can be treated or prevented with the compds. I include **rheumatoid arthritis** and/or its associated symptoms, **systemic lupus erythematosus** and/or its associated symptoms and **multiple sclerosis** and/or its associated symptoms. The general procedures for synthesis of compds. I are described. The characterization data for over 500 prepared

compds. I were given in table. The compds. I were tested in various tests (e.g., inhibition of IgE-induced degranulation, inhibition of Syk kinase, etc.). For example, N4-(2,2-dimethyl-3-oxo-4H-5-pyrido[1,4]oxazin-6-yl)-5-fluoro-N2-(3,4,5-trimethoxyphenyl)-2,4-

**pyrimidinediamine** showed 99.8% inhibition of edema formation when administered at 5 mg/kg in mice.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:220155 CAPLUS

DOCUMENT NUMBER: 140:270866

TITLE: Preparation of (pyridinyl)(pyrimidinyl)imidazo[1,2-alpyridines as TGFβ receptor type I antagonists for treatment of fibrotic disorders and tumors

INVENTOR(S): Lee, Wen-cherng; Carter, Mary Beth; Sun, Lihong; Chuaqui, Claudio; Singh, Juswinder; Boriack-Sjodin, Paula; Choi, Michael S.

PATENT ASSIGNEE(S): Biogen, Inc., USA

SOURCE: PCT Int. Appl., 142 pp.

CODEN: PIXXD2

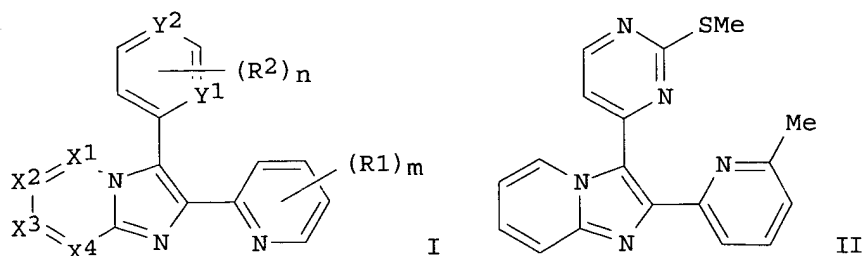
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004021989	A2	20040318	WO 2003-US27721	20030905
WO 2004021989	A3	20040923		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2497968	AA	20040318	CA 2003-2497968	20030905
EP 1546112	A2	20050629	EP 2003-752004	20030905
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003014052	A	20050705	BR 2003-14052	20030905
PRIORITY APPLN. INFO.:			US 2002-408812P	P 20020906
			WO 2003-US27721	W 20030905
OTHER SOURCE(S):	MARPAT 140:270866			
GI				



AB Title compds. I [wherein X1, X2, X3, X4 = independently CR<sub>x</sub> or N, only two of them can be N simultaneously; Y1, Y2 = independently CR<sub>a</sub> or N, at least one of them must be N; R1 = independently alkyl, alkenyl, alkynyl, alkoxy, acyl, urea, cycloalkylsulfanyl, etc.; R2 = independently alkyl, alkenyl, alkynyl, acyl, halo, -N(alkyl)(cycloalkyl), heteroaroyl, etc.; m = 0-4; n = 0-3; R<sub>x</sub>, R<sub>a</sub> = independently hydrogen, alkyl, alkenyl, hydroxy, guanidino, amidino, cycloalkylcarbonylamino, etc.; and pharmaceutically acceptable salts or N-oxides thereof] were prepared as antagonists against transforming growth factor β (TGFβ) family type I receptors, Alk5 and Alk4. For example, methylation of 2-mercapto-4-methylpyrimidine with MeI, followed by reaction with 6-methylpyridine-2-carboxylic acid Et ester and cyclocondensation with 2-aminopyridine, gave II. I exhibited TGFβ-induced PAI-Luciferase reporter activity with IC<sub>50</sub> values of less than 10 μM and cytotoxicity with LD<sub>25</sub> values greater than 10 μM. Thus, I and their pharmaceutical compns. are useful as antagonists for preventing and/or treating numerous diseases, including fibrotic disorders and tumors.

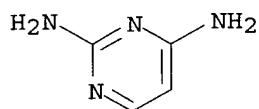
IT 156-81-0, 2,4-Diaminopyrimidine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (pyridinyl)(pyrimidinyl)imidazo[1,2-a]pyridines as TGFβ receptor type I antagonists for treatment of fibrotic disorders and tumors)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:142963 CAPLUS

DOCUMENT NUMBER: 140:199334

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Clough, Jeffrey; Keim, Holger; Sylvain, Catherine; Li, Hui; Bhamidipati, Somasekhar

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 811 pp.

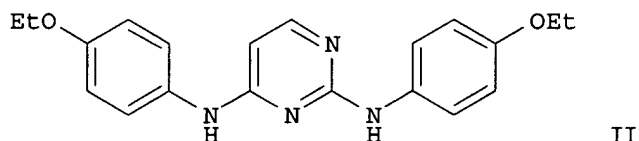
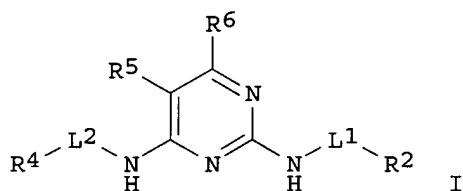
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014382	A1	20040219	WO 2003-US24087	20030729
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2492325	AA	20040219	CA 2003-2492325	20030729
EP 1534286	A1	20050601	EP 2003-784871	20030729
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
BR 2003013059	A	20050705	BR 2003-13059	20030729
US 2005038243	A1	20050217	US 2004-858343	20040601
SE 2005000203	A	20050329	SE 2005-203	20050127
PRIORITY APPLN. INFO.:			US 2002-399673P	P 20020729
			US 2003-443949P	P 20030131
			US 2003-452339P	P 20030306
			US 2003-631029	A 20030729
			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US24087	W 20030729
OTHER SOURCE(S):	MARPAT 140:199334			
GI				



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Title compds. I [wherein L1 and L2 = independently a bond or a

linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. Specific examples of autoimmune diseases that can be treated or prevented with I and their pharmaceutical compns. include rheumatoid arthritis, systemic lupus erythematosus, and multiple sclerosis (no data).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:20322 CAPLUS

DOCUMENT NUMBER: 140:87658

TITLE: Peptidomimetic modulators of cell adhesion

INVENTOR(S): Gour, Barbara J.; Blaschuk, Orest W.; Ali, Anmar; Ni, Feng; Chen, Zhigang; Michaud, Stephanie Denise; Wang, Shaomeng; Hu, Zengjian

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 280 pp., Cont.-in-part of U.S. Ser. No. 6,982.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 15

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004006011	A1	20040108	US 2003-425557	20030428
US 6031072	A	20000229	US 1997-893534	19970711
US 6326352	B1	20011204	US 2000-507102	20000217
US 2002168761	A1	20021114	US 2001-769145	20010124
US 2002151475	A1	20021017	US 2001-6982	20011204
US 6914044	B2	20050705		

PRIORITY APPLN. INFO.:	US 1996-21612P	P	19960712
	US 1997-893534	A1	19970711
	US 2000-491078	B2	20000124
	US 2000-507102	A1	20000217
	US 2001-769145	B2	20010124
	US 2001-6982	A2	20011204

OTHER SOURCE(S): MARPAT 140:87658

AB Peptidomimetics of cyclic peptides, and compns. comprising such peptidomimetics are provided. The peptidomimetics have a three-dimensional structure that is substantially similar to a three-dimensional structure of a cyclic peptide that comprises a cadherin cell adhesion recognition sequence HAV. Methods for using such

peptidomimetics for modulating cadherin-mediated cell adhesion in a variety of contexts are also provided.

L27 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:737756 CAPLUS

DOCUMENT NUMBER: 139:261319

TITLE: Preparation of 5-bromo-2,4-pyrimidinediamines and related compounds as cyclin dependent kinase inhibitors

INVENTOR(S): Luecking, Ulrich; Krueger, Martin; Jautelat, Rolf; Prien, Olaf; Siemeister, Gerd; Ernst, Alexander

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 116 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

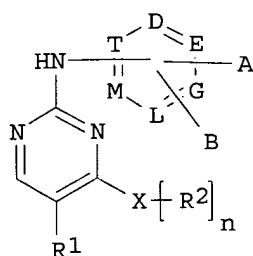
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

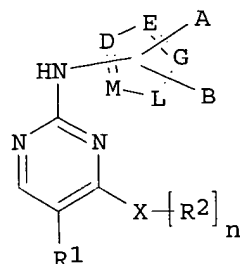
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003076437	A1	20030918	WO 2003-EP1995	20030226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10212100	A1	20031023	DE 2002-10212100	20020311
DE 10255984	A1	20040812	DE 2002-10255984	20021126
EP 1483260	A1	20041208	EP 2003-708151	20030226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004063737	A1	20040401	US 2003-384787	20031027
PRIORITY APPLN. INFO.:			DE 2002-10212100	A 20020311
			DE 2002-10255984	A 20021126
			US 2002-363878P	P 20020314
			US 2002-430053P	P 20021202
			WO 2003-EP1995	W 20030226

OTHER SOURCE(S): MARPAT 139:261319

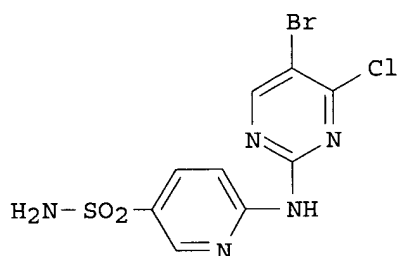
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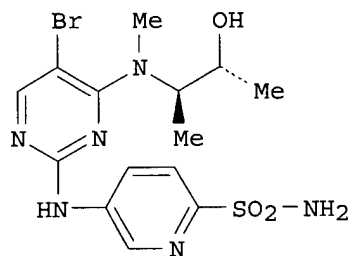
I



II



III



IV

AB Title compds. I and II [D, E, G, L, M, T = C, O, N, S atom whereby at least a heteroatom must be contained in the ring; R1 = H, halo, alkyl, etc.; R2 = H, alkyl, alkenyl, etc.; A, B = H, OH, halo, etc.; n = 0, 1 with provisos] and their pharmaceutically acceptable salts were prepared. For example, condensation of chloropyrimidine III, e.g., prepared from 5-bromo-2-chloro-4-hydroxypyrimidine in 2-steps, and threo-3-methylaminobutan-2-ol afforded pyrimidinediamine IV in 75% yield. In CDK2/CycE inhibition studies, 24-examples of compds. I exhibited IC50 values ranging from 6-74 nM. Compds. I are claimed useful as cardiovascular, antiviral, antitumor, etc. agents.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:133036 CAPLUS

DOCUMENT NUMBER: 138:180679

TITLE: SH3 protein domains and their ligands

INVENTOR(S): Booker, Grant William; Pyke, Simon Mathew; Branson, Kim Mathew; Inglis, Steven Robert

PATENT ASSIGNEE(S): Adelaide Research & Innovation Pty Ltd., Australia

SOURCE: PCT Int. Appl., 176 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003013523	A1	20030220	WO 2002-AU1064	20020808
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				



LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2001-6881 A 20010808

OTHER SOURCE(S): MARPAT 138:180679

AB The present invention relates generally to mols. capable of interaction with one or more domains within a proteinaceous mol. such as a peptide, polypeptide, protein or a macromol. comprising a proteinaceous mol. More particularly the present invention relates to mols. including ligands which are capable of interacting with, and more particularly, binding to, SH3 protein domains or homologs thereof and even more particularly to mols. including ligands which are capable of binding to SH3 domains having a three-dimensional ligand-binding site comprising a neg. charged residue and a hydrophobic residue linearly separated by at least five amino acid residues. The subject invention is preferably directed to the use of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline and derivs., homologs, analogs and mimetics thereof or pharmaceutically acceptable salts thereof which interact with SH3 domains, and more particularly to the binding of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline and derivs. analogs and mimetics to SH3 domains as defined above. The present invention contemplates the use of a three dimensional structure of the subject SH3 domain to identify, screen and design amino-substituted and amino-substituted pyridines and aminoquinolines capable of binding to an SH3 domain. The present invention is also useful for the in silico selection of derivs. homologs, analogs and mimetics of 2-aminopyridine, 2-aminoquinoline, 1-aminoisoquinoline capable of binding to SH3 domains. The ligands of the present invention are useful in the development of a range of therapeutic and diagnostic agents.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:91269 CAPLUS

DOCUMENT NUMBER: 139:62596

TITLE: Imidazopyrimidines, potent inhibitors of p38 MAP kinase

AUTHOR(S): Rupert, Kenneth C.; Henry, James R.; Dodd, John H.; Wadsworth, Scott A.; Cavender, Druie E.; Olini, Gilbert C.; Fahmy, Bohumila; Siekierka, John J.

CORPORATE SOURCE: L.L.C., Drug Discovery, Johnson & Johnson Pharmaceutical Research and Development, Raritan, NJ, 08869, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(3), 347-350  
 CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

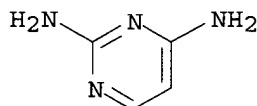
DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:62596

AB The MAP kinase p38 is implicated in the release of the pro-inflammatory cytokines TNF- $\alpha$  and IL-1 $\beta$ . Inhibition of cytokine release may be a useful treatment for inflammatory conditions such as **rheumatoid arthritis** and Crohn's disease. A novel series of imidazopyrimidines have been discovered that potently inhibit p38 and suppress the production of TNF- $\alpha$  in vivo.

IT **156-81-0, 2,4-Pyrimidinediamine**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (imidazopyrimidines, potent inhibitors of p38 MAP kinase)  
 RN 156-81-0 CAPLUS  
 CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:449449 CAPLUS

DOCUMENT NUMBER: 137:33318

TITLE: Preparation of pyrimidinylaminothiazoles as tyrosine kinase inhibitors.

INVENTOR(S): Bilodeau, Mark T.; Hartman, George D.; Hoffman, Jacob M., Jr.; Lumma, William C., Jr.; Manley, Peter J.; Rodman, Leonard; Sisko, John T.; Smith, Anthony M.; Tucker, Thomas J.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 169 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

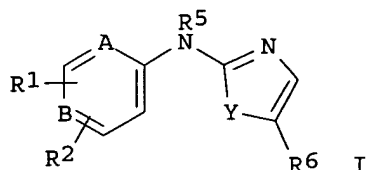
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045652	A2	20020613	WO 2001-US44573	20011130
WO 2002045652	A3	20020822		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002137755	A1	20020926	US 2001-990473	20011121
CA 2429728	AA	20020613	CA 2001-2429728	20011130
AU 2002032441	A5	20020618	AU 2002-32441	20011130
EP 1341540	A2	20030910	EP 2001-991965	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004524282	T2	20040812	JP 2002-547438	20011130
US 2004063720	A1	20040401	US 2003-677687	20031002
PRIORITY APPLN. INFO.:			US 2000-251006P	P 20001204
			US 2001-990473	A1 20011121
			WO 2001-US44573	W 20011130

OTHER SOURCE(S): MARPAT 137:33318

GI

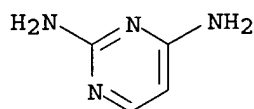


AB Title compds. [I; A, B = N, NO; Y = O, S, NR<sub>4</sub>; R<sub>1</sub>, R<sub>2</sub> = H, perfluoroalkoxy, OH, cyano, halo, (substituted) alkyl(oxy)(carbonyl), aryl(oxy)(carbonyl), heterocyclyl, etc.; R<sub>4</sub> = H, aryl, alkyl; R<sub>5</sub> = H, SO<sub>2</sub>Rc, CORc, Rc, CO<sub>2</sub>Rc; R<sub>6</sub> = aryl, cyano, halo, (substituted) alkyl, alkenyl, alkynyl, heterocyclyl, aminocarbonyl; Rc = alkyl, aryl, heterocyclyl], were prepared for treating angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammation, etc. Thus, 4-aminopyrimidine was stirred with NaH in THF; 2-bromo-5-phenylthiazole was added and the mixture was refluxed overnight to give 5-phenylthiazol-2-yl pyrimidin-4-yl amine. I inhibited vascular endothelial growth factor-stimulated mitogenesis of human vascular endothelial cells with IC<sub>50</sub> = 0.01-5.0 nM.

IT 156-81-0, 2,4-Diaminopyrimidine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of pyrimidinylaminothiazoles as tyrosine kinase inhibitors)

RN 156-81-0 CAPLUS

CN 2,4-Pyrimidinediamine (9CI) (CA INDEX NAME)



L27 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:869496 CAPLUS

DOCUMENT NUMBER: 137:363033

TITLE: Peptidomimetic modulators of cell adhesion

INVENTOR(S): Gour, Barbara J.; Blaschuk, Orest W.; Ali, Anmar; Ni, Feng; Chen, Zhigang; Michaud, Stephanie D.; Wang, Shoameng; Hu, Zenjian

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 309 pp., Cont.-in-part of U.S. Ser. No. 491,078.  
 CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 15

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002168761	A1	20021114	US 2001-769145	20010124
US 2004058864	A1	20040325	US 2003-412701	20030410
US 2004006011	A1	20040108	US 2003-425557	20030428
PRIORITY APPLN. INFO.:			US 2000-491078	A2 20000124
			US 1996-21612P	P 19960712
			US 1997-893534	A1 19970711

US 2000-507102 A1 20000217  
 US 2001-769145 B1 20010124  
 US 2001-6982 A2 20011204

OTHER SOURCE(S): MARPAT 137:363033

AB Peptidomimetics of cyclic peptides, and compns. comprising such peptidomimetics are provided. The peptidomimetics have a three-dimensional structure that is substantially similar to a three-dimensional structure of a cyclic peptide that comprises a cadherin cell adhesion recognition sequence HAV. Methods for using such peptidomimetics for modulating cadherin-mediated cell adhesion in a variety of contexts are also provided.

L27 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:457043 CAPLUS

DOCUMENT NUMBER: 133:89537

TITLE: Preparation of **2,4-pyrimidinediamine** derivatives as anticancer agents

INVENTOR(S): Bradbury, Robert Hugh; Breault, Gloria Anne; Jewsbury, Philip John; Pease, Janet Elizabeth

PATENT ASSIGNEE(S): Astrazeneca UK Limited, UK

SOURCE: PCT Int. Appl., 137 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

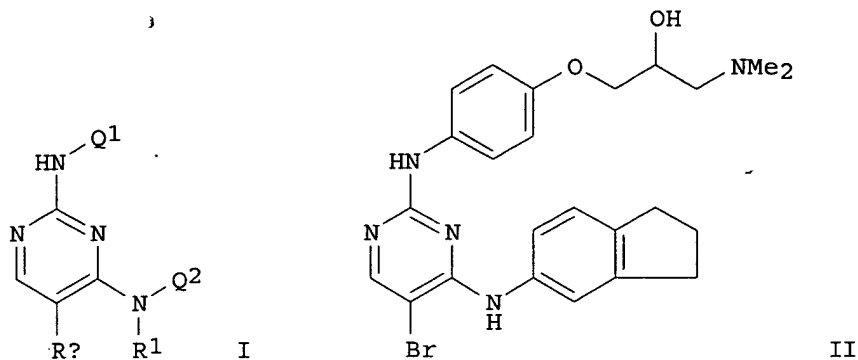
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039101	A1	20000706	WO 1999-GB4325	19991220
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2352896	AA	20000706	CA 1999-2352896	19991220
EP 1140860	A1	20011010	EP 1999-962375	19991220
EP 1140860	B1	20040922		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9916590	A	20011023	BR 1999-16590	19991220
JP 2002533446	T2	20021008	JP 2000-591012	19991220
AU 763091	B2	20030710	AU 2000-18743	19991220
NZ 512118	A	20030829	NZ 1999-512118	19991220
AT 277020	E	20041015	AT 1999-962375	19991220
ES 2228145	T3	20050401	ES 1999-962375	19991220
ZA 2001004413	A	20020829	ZA 2001-4413	20010529
NO 2001003038	A	20010822	NO 2001-3038	20010619
US 6593326	B1	20030715	US 2001-868602	20010823
PRIORITY APPLN. INFO.:			GB 1998-28511	A 19981224
			WO 1999-GB4325	W 19991220

OTHER SOURCE(S): MARPAT 133:89537

GI



AB The present invention relates to the title compds. (I) [wherein R1 = H, (un)substituted alkyl, alkenyl, or alkynyl, benzyl, 2-phenylethyl, phthalimidoalkyl, or cycloalkylalkyl; Rx = halo, OH, NO2, NH2, CN, SH, CO2H, SO2NH2, NHCHO, ureido, etc.; Q1 and Q2 = independently (un)substituted aryl, 5- or 6-membered monocycle, or 9- or 10-membered bicyclic heterocycle], processes for their manufacture, and pharmaceutical compns. containing them. For example, addition of 4-[2-hydroxy-3-(N,N-dimethylamino)propoxy]aniline•HCl in MeOH to 5-bromo-2-chloro-4-(indan-5-ylamino)pyrimidine in BuOH (preps. given) and heating to 100°C for 18 h gave II (42%). I inhibited the effects of cyclin-dependent serine/threonine kinases (CDKs), showing selectivity for CDK2 (no data), CDK4 (IC50 ranging from 0.02  $\mu$ M to 0.07  $\mu$ M), and CDK6 (no data). In a tyrosine kinase activity assay using Sf21 cells transfected with plaque-pure FAK recombinant virus, I also inhibited focal adhesion kinase 3 (FAK3) with IC50 ranging from 0.032  $\mu$ M to 0.07  $\mu$ M. Typical IC50 values for I when tested for inhibition of cell growth in an Sulforhodamine B (SRB) assay were in the range of 1 mM to 1 nM. Thus, I possess anti-cancer properties, including anti-cell-migration, antiproliferation and/or apoptotic properties. Such properties are expected to be of value in the treatment of disease states associated with aberrant cell cycles and cell proliferation such as cancers (solid tumors and leukemias), fibroproliferative and differentiative disorders, psoriasis, **rheumatoid arthritis**, Kaposi's sarcoma, hemangioma, acute and chronic nephropathies, atheroma, atherosclerosis, arterial restenosis, **autoimmune diseases**, acute and chronic inflammation, bone diseases, and ocular diseases with retinal vessel proliferation.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 13 OF 13 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 91081327 EMBASE

DOCUMENT NUMBER: 1991081327

TITLE: Therapy of acute and chronic **multiple sclerosis**.

AUTHOR: Tindall R.S.A.

CORPORATE SOURCE: Department of Neurology, University of Southern California, Los Angeles Veterans Administration Facility, 425 South Hill Street, Los Angeles, CA 90013, United States

SOURCE: Comprehensive Therapy, (1991) Vol. 17, No. 1, pp. 18-25.

ISSN: 0098-8243 CODEN: COTHD3

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 008 Neurology and Neurosurgery  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LANGUAGE: English  
ENTRY DATE: Entered STN: 911216  
Last Updated on STN: 911216  
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

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L28 2983 FILE MEDLINE  
L29 7931 FILE BIOSIS  
L30 2556 FILE EMBASE  
L31 9987 FILE CAPLUS

TOTAL FOR ALL FILES

L32 23457 SINGH R?/AU

L33 1 FILE MEDLINE  
L34 8 FILE BIOSIS  
L35 7 FILE EMBASE  
L36 21 FILE CAPLUS

TOTAL FOR ALL FILES

L37 37 ARGADE A?/AU

L38 144 FILE MEDLINE  
L39 206 FILE BIOSIS  
L40 138 FILE EMBASE  
L41 158 FILE CAPLUS

TOTAL FOR ALL FILES

L42 646 PAYAN D?/AU

=> s l32 and l37 and l42

L43 0 FILE MEDLINE  
L44 1 FILE BIOSIS  
L45 0 FILE EMBASE  
L46 2 FILE CAPLUS

TOTAL FOR ALL FILES

L47 3 L32 AND L37 AND L42

=> s l47 not l26

L48 0 FILE MEDLINE  
L49 1 FILE BIOSIS  
L50 0 FILE EMBASE  
L51 1 FILE CAPLUS

TOTAL FOR ALL FILES

L52 2 L47 NOT L26

=> dup rem l52

PROCESSING COMPLETED FOR L52

L53 2 DUP REM L52 (0 DUPLICATES REMOVED)

=> d ibib abs 1-2

L53 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:610204 CAPLUS

DOCUMENT NUMBER: 139:164801

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of allergic diseases, inflammatory conditions, and tissue destruction

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Molineaux, Susan; Holland, Sacha J.; Clough, Jeffrey; Keim, Holger; Bhamidipati, Somasekhar; Sylvain, Catherine; Li, Weigun; Rossi, Alexander B.

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 648 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

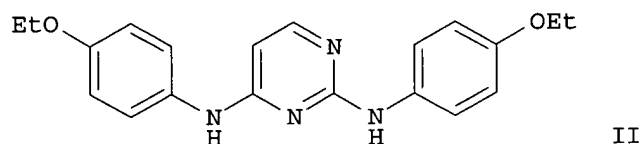
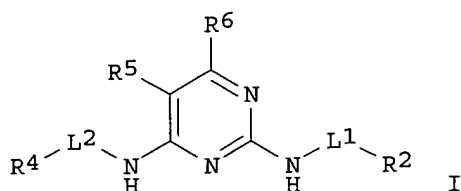
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063794	A2	20030807	WO 2003-US3022	20030131
WO 2003063794	A3	20031204		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2474277	AA	20030807	CA 2003-2474277	20030131
US 2004029902	A1	20040212	US 2003-355543	20030131
EP 1471915	A2	20041103	EP 2003-707654	20030131
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2005516046	T2	20050602	JP 2003-563490	20030131
US 2005038243	A1	20050217	US 2004-858343	20040601
PRIORITY APPLN. INFO.:			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-399673P	P 20020729
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US3022	W 20030131

OTHER SOURCE(S): MARPAT 139:164801

GI



AB Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. The treatment and prevention of allergic diseases, low grade scarring, diseases associated with tissue destruction, diseases associated with tissue inflammation, inflammation, and scarring are targeted uses (no data).

L53 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2002:165568 BIOSIS  
 DOCUMENT NUMBER: PREV200200165568  
 TITLE: Development and utilization of cultured human mast cells for high throughput small molecule drug discovery.  
 AUTHOR(S): Rossi, Alexander [Reprint author]; Holland, Sacha [Reprint author]; Woronicz, John [Reprint author]; Quast, Jeff [Reprint author]; **Argade, Ankush**; Sylvain, Catherine; Juencke, Sara; Sula, Caroline; Tombo, Wendy [Reprint author]; Goodrich, Bethany; Pine, Polly; Scheerens, Heleen; Natarajan, Gita; Li, Wenbao; Bennett, Mark [Reprint author]; Daniel, Ruby; Wagner, Gregory; **Singh, Rajinder**; Molineaux, Susan [Reprint author]; **Payan, Donald**  
 CORPORATE SOURCE: Cell Biology, Rigel Pharmaceuticals, Inc., 240 East Grand Avenue, So. San Francisco, CA, 94080, USA  
 SOURCE: Molecular Biology of the Cell, (Nov, 2001) Vol. 12, No. Supplement, pp. 512a-513a. print.  
 Meeting Info.: 41st Annual Meeting of the American Society



for Cell Biology. Washington DC, USA. December 08-12, 2001.  
American Society for Cell Biology.  
CODEN: MBCEEV. ISSN: 1059-1524.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 5 Mar 2002  
Last Updated on STN: 5 Mar 2002

=> s keim h?/au;s bhamidipati s?/au;s sylvain c?/au;s li h?/au

L54 84 FILE MEDLINE  
L55 57 FILE BIOSIS  
L56 57 FILE EMBASE  
L57 70 FILE CAPLUS

TOTAL FOR ALL FILES

L58 268 KEIM H?/AU

L59 8 FILE MEDLINE  
L60 18 FILE BIOSIS  
L61 7 FILE EMBASE  
L62 16 FILE CAPLUS

TOTAL FOR ALL FILES

L63 49 BHAMIDIPATI S?/AU

L64 8 FILE MEDLINE  
L65 13 FILE BIOSIS  
L66 11 FILE EMBASE  
L67 10 FILE CAPLUS

TOTAL FOR ALL FILES

L68 42 SYLVAIN C?/AU

L69 5342 FILE MEDLINE  
L70 6316 FILE BIOSIS  
L71 4069 FILE EMBASE  
L72 21181 FILE CAPLUS

TOTAL FOR ALL FILES

L73 36908 LI H?/AU

=> s l58 and l63 and l68 and l73

L74 0 FILE MEDLINE  
L75 0 FILE BIOSIS  
L76 0 FILE EMBASE  
L77 3 FILE CAPLUS

TOTAL FOR ALL FILES

L78 3 L58 AND L63 AND L68 AND L73

=> s l78 not l52

L79 0 FILE MEDLINE  
L80 0 FILE BIOSIS  
L81 0 FILE EMBASE  
L82 3 FILE CAPLUS

## TOTAL FOR ALL FILES

L83 3 L78 NOT L52

=&gt; d 1-3 ibib abs

L83 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:158646 CAPLUS

DOCUMENT NUMBER: 142:254587

TITLE: Methods for treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compounds

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 276 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016893	A2	20050224	WO 2004-US24716	20040730
WO 2005016893	A3	20050609		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2003-491641P P 20030730  
US 2003-531598P P 20031219  
US 2004-572246P P 20040518

OTHER SOURCE(S): MARPAT 142:254587

AB The invention provides methods for treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of autoimmune diseases that can be treated or prevented with the compds. include rheumatoid arthritis and/or its associated symptoms, systemic lupus erythematosus and/or its associated symptoms and multiple sclerosis and/or its associated symptoms.

L83 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:120923 CAPLUS

DOCUMENT NUMBER: 142:219300

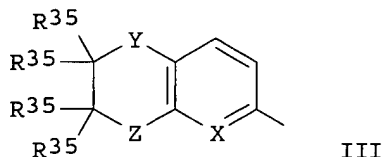
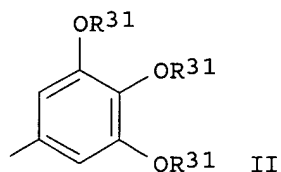
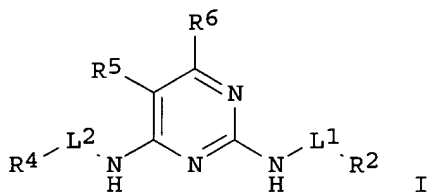
TITLE: 2,4-Pyrimidinediamines for use in the treatment or prevention of autoimmune diseases

INVENTOR(S): Rajinder, Singh; Ankush, Argade; Li, Hui; Bhamidipati, Somasekhar; Carroll, David; Sylvain, Catherine; Clough, Jeffrey; Keim, Holger

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 169 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012294	A1	20050210	WO 2004-US24920	20040730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-491641P	P 20030730
			US 2003-531598P	P 20031219
			US 2004-572246P	P 20040518
OTHER SOURCE(S):			MARPAT 142:219300	
GI				



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds. I [L1, L2 = a direct bond or a linker; R2 = II; R4 = III; X = N, CH; Y, Z = O, S, SO, SO2, etc.; R5 = R6, alkyl, alkenyl, etc.; R6 = H, an electroneg. group, alkoxy, haloalkoxy, etc.; R31 = Me, alkyl; R35 = H, alkyl, cycloalkyl, etc.; or two R35 bonded together to the same carbon atom are taken together to form an oxo, (un)substituted NH], as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Specific examples of autoimmune diseases that can be treated or prevented with the compds. I include rheumatoid arthritis and/or its associated symptoms, systemic lupus erythematosus and/or its associated symptoms and multiple sclerosis and/or its associated symptoms. The general procedures

for synthesis of compds. I are described. The characterization data for over 500 prepared compds. I were given in table. The compds. I were tested in various tests (e.g., inhibition of IgE-induced degranulation, inhibition of Syk kinase, etc.). For example, N4-(2,2-dimethyl-3-oxo-4H-5-pyrido[1,4]oxazin-6-yl)-5-fluoro-N2-(3,4,5-trimethoxyphenyl)-2,4-pyrimidinediamine showed 99.8% inhibition of edema formation when administered at 5 mg/kg in mice.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L83 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:142963 CAPLUS

DOCUMENT NUMBER: 140:199334

TITLE: Preparation of 2,4-pyrimidinediamines as IgE and/or IgG receptor modulators for treatment of autoimmune diseases

INVENTOR(S): Singh, Rajinder; Argade, Ankush; Payan, Donald G.; Clough, Jeffrey; Keim, Holger; Sylvain, Catherine; Li, Hui; Bhamidipati, Somasekhar

PATENT ASSIGNEE(S): Rigel Pharmaceuticals, USA

SOURCE: PCT Int. Appl., 811 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

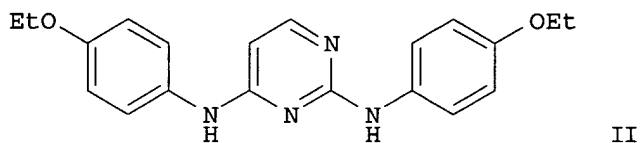
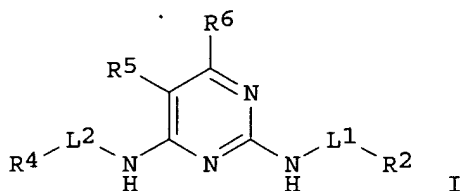
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014382	A1	20040219	WO 2003-US24087	20030729
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492325	AA	20040219	CA 2003-2492325	20030729
EP 1534286	A1	20050601	EP 2003-784871	20030729
R:				
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BR 2003013059	A	20050705	BR 2003-13059	20030729
US 2005038243	A1	20050217	US 2004-858343	20040601
SE 2005000203	A	20050329	SE 2005-203	20050127
PRIORITY APPLN. INFO.:			US 2002-399673P	P 20020729
			US 2003-443949P	P 20030131
			US 2003-452339P	P 20030306
			US 2003-631029	A 20030729
			US 2002-353267P	P 20020201
			US 2002-353333P	P 20020201
			US 2002-434277P	P 20021217
			US 2003-355543	A1 20030131
			WO 2003-US24087	W 20030729

OTHER SOURCE(S): MARPAT 140:199334

GI



AB The present invention provides methods of treating or preventing autoimmune diseases with 2,4-pyrimidinediamine compds., as well as methods of treating, preventing or ameliorating symptoms associated with such diseases. Title compds. I [wherein L1 and L2 = independently a bond or a linker; R2 = (un)substituted alkyl, (hetero)cycloalkyl, or (hetero)aryl; R4 = H or R2; R5 = R6 or (un)substituted alkyl, alkenyl, or alkynyl; R6 = independently H, an electroneg. group, protected alc. or thiol, haloalkyl(oxy), halo, CN, NC, OCN, SCN, NO, NO2, N3, or (un)substituted amino, sulfamoyl(oxy), acyl, carboxy, carbamoyl, (hetero)aryl(alkyl), etc.; with provisos and exclusions; and salts, hydrates, solvates, N-oxides, and prodrugs thereof] were prepared as inhibitors of the IgE and/or IgG receptor signaling cascades that lead to the release of chemical mediators. For example, coupling of 2,4-dichloropyrimidine with 4-ethoxyaniline in EtOH provided N2,N4-bis(4-ethoxyphenyl)-2,4-pyrimidinediamine (II). The latter inhibited degranulation of bone marrow derived mast cells challenged with anti-IgE and ionomycin with IC50 values of 4.5  $\mu$ M and 4.4  $\mu$ M, resp. Thus, I and their pharmaceutical compns. are useful in the treatment and prevention of diseases characterized by, caused by, or associated with the release of chemical mediators via degranulation of mast, basophil, neutrophil, or eosinophil cells and other processes effected by activation of the IgE and/or IgG receptor signaling cascades. Specific examples of autoimmune diseases that can be treated or prevented with I and their pharmaceutical compns. include rheumatoid arthritis, systemic lupus erythematosus, and multiple sclerosis (no data).

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> dis his

(FILE 'HOME' ENTERED AT 10:15:21 ON 17 AUG 2005)

FILE 'REGISTRY' ENTERED AT 10:15:38 ON 17 AUG 2005

E "2,4-PYRIMIDINEDIAMINE"/CN 5  
 L1 1 S E3  
 E "R 921302"/CN 5  
 E "R921302"/CN 5  
 E "R 926891"/CN 5

E "R926891"/CN 5  
 E "R 940323"/CN 5  
 E "R940323"/CN 5  
 E "R 940347"/CN 5  
 E "R940347"/CN 5  
 E "R 921303"/CN 5  
 E "R921303"/CN 5

FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS' ENTERED AT 10:17:20 ON 17 AUG 2005

L2 136215 FILE MEDLINE  
 L3 119817 FILE BIOSIS  
 L4 136957 FILE EMBASE  
 L5 60193 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L6 453182 S (AUTOIMMUNE DISEASE OR AUTOIMMUNE ENCEPHALOMYELIT? OR RHEUMAT  
 L7 0 FILE MEDLINE  
 L8 0 FILE BIOSIS  
 L9 0 FILE EMBASE  
 L10 250623 FILE MEDLINE  
 L11 50150 FILE BIOSIS  
 L12 0 FILE EMBASE  
 L13 0 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L14 300773 S C20.111?/CT  
 L15 39 FILE MEDLINE  
 L16 62 FILE BIOSIS  
 L17 35 FILE EMBASE  
 L18 351 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L19 487 S L1 OR "2,4-PYRIMIDINEDIAMINE" OR "2,4-DIAMINOPYRIDINE" OR NSC  
 L20 39 FILE MEDLINE  
 L21 62 FILE BIOSIS  
 L22 0 FILE MEDLINE  
 L23 0 FILE BIOSIS  
 L24 1 FILE EMBASE  
 L25 12 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L26 13 S L19 AND (L6 OR L14)  
 L27 13 DUP REM L26 (0 DUPLICATES REMOVED)  
 L28 2983 FILE MEDLINE  
 L29 7931 FILE BIOSIS  
 L30 2556 FILE EMBASE  
 L31 9987 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L32 23457 S SINGH R?/AU  
 L33 1 FILE MEDLINE  
 L34 8 FILE BIOSIS  
 L35 7 FILE EMBASE  
 L36 21 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L37 37 S ARGAGE A?/AU  
 L38 144 FILE MEDLINE  
 L39 206 FILE BIOSIS  
 L40 138 FILE EMBASE  
 L41 158 FILE CAPLUS  
 TOTAL FOR ALL FILES  
 L42 646 S PAYAN D?/AU  
 L43 0 FILE MEDLINE  
 L44 1 FILE BIOSIS  
 L45 0 FILE EMBASE

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L46          2 FILE CAPLUS
TOTAL FOR ALL FILES
L47          3 S L32 AND L37 AND L42
L48          0 FILE MEDLINE
L49          1 FILE BIOSIS
L50          0 FILE EMBASE
L51          1 FILE CAPLUS
TOTAL FOR ALL FILES
L52          2 S L47 NOT L26
L53          2 DUP REM L52 (0 DUPLICATES REMOVED)
L54          84 FILE MEDLINE
L55          57 FILE BIOSIS
L56          57 FILE EMBASE
L57          70 FILE CAPLUS
TOTAL FOR ALL FILES
L58          268 S KEIM H?/AU
L59          8 FILE MEDLINE
L60          18 FILE BIOSIS
L61          7 FILE EMBASE
L62          16 FILE CAPLUS
TOTAL FOR ALL FILES
L63          49 S BHAMIDIPATI S?/AU
L64          8 FILE MEDLINE
L65          13 FILE BIOSIS
L66          11 FILE EMBASE
L67          10 FILE CAPLUS
TOTAL FOR ALL FILES
L68          42 S SYLVAIN C?/AU
L69          5342 FILE MEDLINE
L70          6316 FILE BIOSIS
L71          4069 FILE EMBASE
L72          21181 FILE CAPLUS
TOTAL FOR ALL FILES
L73          36908 S LI H?/AU
L74          0 FILE MEDLINE
L75          0 FILE BIOSIS
L76          0 FILE EMBASE
L77          3 FILE CAPLUS
TOTAL FOR ALL FILES
L78          3 S L58 AND L63 AND L68 AND L73
L79          0 FILE MEDLINE
L80          0 FILE BIOSIS
L81          0 FILE EMBASE
L82          3 FILE CAPLUS
TOTAL FOR ALL FILES
L83          3 S L78 NOT L52

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=> log y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

138.76

146.93

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE  
ENTRY

TOTAL  
SESSION

CA SUBSCRIBER PRICE

-11.68

-11.68

STN INTERNATIONAL LOGOFF AT 10:26:10 ON 17 AUG 2005

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